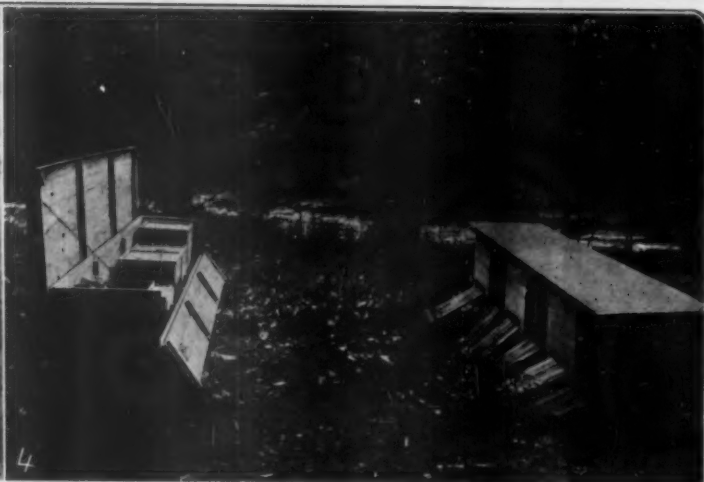


AMERICAN BEE JOURNAL

50th YEAR



American Bee Journal



PUBLISHED MONTHLY BY
GEORGE W. YORK & COMPANY
146 W. Superior Street, Chicago, Ill.

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(Organized in 1870.)

Objects.

1. To promote the interests of bee-keepers.
2. To protect and defend its members in their lawful rights as to keeping bees.
3. To enforce laws against the adulteration of honey.

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Hens fed out green bone lay more eggs. Get a Crown Bone Cutter. Send to-day for catalogue. Wilson Bros., Box 514, Easton, Pa.

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Our Standard-Bred

6 Queens for \$4.00; 3 for \$2.10;
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For a number of years we have been sending out to bee-keepers exceptionally fine Untested Italian Queens, purely mated, and all right in every respect. Here is what a few of those who received our Queens have to say about them:

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CHAS. MITCHELL

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Please mention Am. Bee Journal when writing.

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Golden or R. C. Untested, 65c; Tested, \$1.15. Natural Golden from Imported stock—Untested, \$1.00; Tested, \$1.50. See list.

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Write us when you have any to offer, naming your lowest price, freight paid Cincinnati. We buy every time your price justifies, and we remit the very day shipment arrives.

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"THE BUSY BEE-MEN"

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Best Untested Italian Queens, \$1.00.
Best Tested Italian Queens, \$1.50.

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Bee-Keepers' Supplies.

Sold at reduced prices. Dovetailed Hives. Sections, and everything pertaining to bee-keeping of the very best kept in stock. Large Warehouse on of L. S. & M. S. R. R.
Wholesale and Retail. New price-list just out—Free. Let me figure on your wants.

W. D. Soper, Jackson, Mich.

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SWARTHMORE PEDIGREE GOLDENS

Queens from the well-known Swarthmore Apiaries of the late E. L. Pratt. The *brightest hustlers* and the most *gentle* pure strain of *Goldens* in the U. S.

The Swarthmore Apiaries, Swarthmore, Pa.

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IF you need a nice yellow Italian Queen at once, send to **J. L. FAJEN, Alma, Mo.** Untested, only 75c. Tested, \$1.25. 3-frame nucleus with Queen, \$2.75. Full colony, in 8-frame hive, \$5.50.

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We Have Some Copies Left of the Book

"Bees and Honey"

By Thomas G. Newman

bound in cloth, that we offer cheap to close out. It contains 160 pages, and is bound in cloth. It used to be a one-dollar book, but we will mail them, so long as they last, at 50 cents each; or with the American Bee Journal one year—**both for only \$1.20.** Surely this is a bargain. The book is well illustrated, and has some good information in it, especially for beginners. Address all orders to

George W. York & Co.,
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Prompt Service and Lewis BEEWARE

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In 8-frame Langstroth hives. 1 Colony, \$5; 2 for \$9; 5 for \$20. Italian Queens—Untested 75c each; 6 for \$4. Select Tested, \$1.25 each; 5 for \$6.

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Carniolan Queens.

Bred from best Imported stock.

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| Untested..... | .75 | 6 | \$4.00 | 12 | 5A5 |
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Sections at \$3.50 a 1000

We are making this big sacrifice in price to move a lot of 500,000 we have in our warehouse. These are the regular one-piece $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$ two-beeway Basswood Sections. They are No. 2 quality, and listed at \$5.00 per 1000. **Send in your orders now, before they are sold out.**

Our Shipping-Cases

are recommended by the largest honey-buyers in the country. Covers and Bottoms are one piece; everything is Basswood, smooth on both sides, no-drip sticks or corrugated paper in bottom. We make these to fit any number or size of sections. We have on hand a large stock to hold 24 sections, which we offer complete with paper and 2-inch glass at \$13 per 100; Crates of 50, \$7.50; Crates of 25, \$4.00.

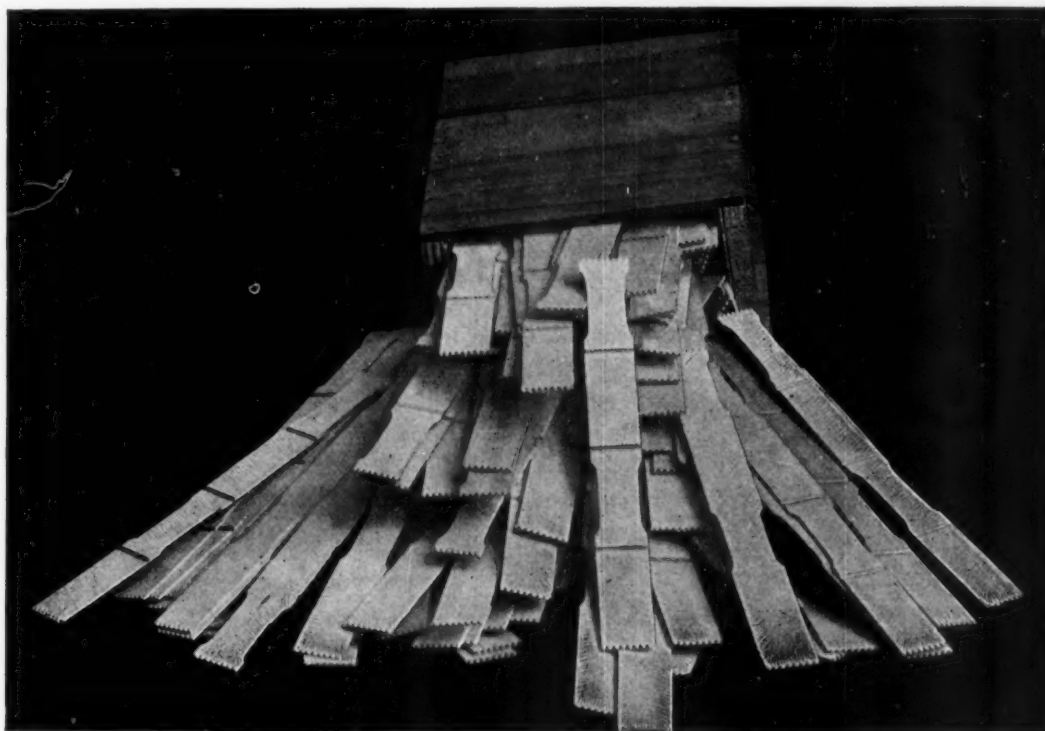
Write for Catalog and prices on Hives, Frames, Foundation, or anything you need in the apiary.

Minnesota Bee-Supply Co.

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YOU CAN FOLD A CRATE OF 500 WITHOUT BREAKING ONE!
G. B. LEWIS CO., Mfrs., Watertown, Wis. 30 Distributing Houses

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Queens Golden and IMPORTED STOCK!

Goldens mated to Imported Stock. If you want HONEY, try my Superior Strain.

Untested, 65c each; 6 for \$3.50. Tested, \$1.00 each; 6 for \$5.50.

Safe arrival. No disease. 8Atf

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To The People:

I have more orders for Untested and Tested Queens than I can fill this year. But I have a **Few Fine Breeders** that were reared this year. Price, \$3.00 and \$5.00 each.

J. B. Scoggins, Fouke, Miller Co., Ark.

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Have some fine ITALIAN BREEDING QUEENS at \$2.50, \$5.00, and \$10.00. Untested Queens, \$1.00 each; \$9.00 per dozen. Send for Circular.

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It is just **50 Years** since I began bee-keeping, and 30 years ago I sent the first Cyprians direct from the Island of Cyprus to America. Cyprians get the honey. Queens bred and mated in Cyprus, \$5 and \$6 each; homebred, \$1 each; 5 for \$4.

FRANK BENTON, P. O. Box 17, Washington, D. C.



We Are Still Here—Rearing Those Fine Superior GOLDEN ITALIAN QUEENS

If you want to get a larger crop of Honey than usual, get **Hall Superior Golden Queens NOW for 1911**. Untested Queens—1 for \$1.00; 6 for \$5.00; 12 for \$9.00.

Write us your wants.

T. S. HALL, JASPER, Pickens Co., GEORGIA.



(Entered as second-class matter July 30, 1907, at the Post-Office at Chicago, Ill., under Act of March 3, 1879.)

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GEORGE W. YORK, Editor.
DR. C. C. MILLER, Associate Editor.

CHICAGO, ILL., AUGUST, 1910

Vol. L---No. 8

Editorial Notes and Comments

The Honey Crop of 1910

It is doubtful if the present generation of bee-keepers will ever experience a year so difficult as the present in which to forecast what is likely to take place with regard to the honey crop. At least this is true of a large portion of the country. Take Northern Illinois. In April colonies were strong enough for the harvest, and with the abundant showing of clover there was every reason to expect a crop. Afterward came a long cold, wet spell, and in the first half of June the bees reached the point of starvation in many cases. Where the bee-keeper was not on the alert, if colonies did not actually starve, they were likely to stop all brood-rearing, making them too weak for the harvest. Then came another sudden change, and although it is almost unbelievable, by the 15th of June second supers were given in some cases where only a week before it was necessary to feed. For perhaps about 3 weeks the flow continued heavy, and the bee-keeper would have said, "There is every prospect that this will be the biggest year we have had." But by July 10th the drouth got in its deadly work, and robbing became the order of the day. Whether in such an unguessable year the flow may start up again, giving finally a full crop, or whether the end has already been reached, with only half a crop, can only be told in the future.

In a good many places the same state of affairs seems to have existed. R. L. Taylor, reporting from Michigan in *Gleanings* in *Bee Culture*, graphically expresses it by saying:

"The bad weather of the last part of May and the first week of June, when the bees pulled out their drones, and in some cases worker-brood, gave honey prospects a black eye."

Gleanings for July 15th publishes 33 reports from different parts of the country. In these there are a dozen

complaints of drouth, and 4 of too much wet. A little more than a fourth of the reports are from good to excellent; 15 percent fair; and nearly 60 percent from less than the average to a fifth of a crop.

The Colorado Honey-Producers' Association, Denver, says:

"The prospects for a honey crop in this locality are certainly very discouraging. While a part of the State will have some kind of a crop, the chances are that this locality will have but a very small part."

Telegraphic dispatches, dated July 12th, gave the following: Washington, D. C., "Very poor crop." Wisconsin, "General reports from one-third to half crop." Fremont, Mich., "Not more than half a crop." Lansing, Mich., "Half a crop." Iowa, "A little below the average." New York, "Fair to medium." Philadelphia, "Twenty percent average." Western Vermont, "One of our best years." Eastern and Central Massachusetts, "Light." Missouri, Arkansas, and Southern States report "a very light crop—below that of last season." Indiana, "The central and northern parts of the State have the best crop that has been taken for years; but the southern part of the State has not done so well." Zanesville, Ohio, "Conditions are the worst I have ever known."

It certainly looks as if honey ought to bring a fair price this year. But in a year of such sudden and remarkable changes, it can only be told later whether the harvest is much below the average or not.

Uncapping Drone-Brood to Prevent Swarming

There is a more or less general belief that the suppression of drone-brood has a tendency to prevent swarming. Certainly it is the regular program for bees to rear drone-brood in preparation for swarming. M. R.

Kuehne reports in the *Bee-Keepers Review* that he thinks bees are dissatisfied if they are not allowed to rear any drone-brood, and so for several years he has allowed each colony to rear some drone-brood, and then he uncaps it. If in sufficient quantity he thinks this prevents swarming.

Very likely uncapping this brood does have its effect in preventing swarming, but it might be hard to prove that it is any more effective than suppressing drones by keeping drone-comb out of the hive. And what proof is there that bees are any more dissatisfied with having no drone-brood than they would be having it slaughtered?

Now a Good Time to Requeen Colonies

In an apiary of any considerable size it will generally be found that some colonies have far outstripped others in the amount of honey stored. Some, indeed, will be found that have done next to nothing, while others have stored ten times as much. And yet too often nothing will be done about it, and the poor colonies will be allowed to continue unmolested. The wise bee-keeper, however, will see that these ne'er-do-wells have their queens changed for those of better stock.

Now that the season is so far advanced that we know which are the good and which are the poor colonies, it is a good time to requeen all that do not come up to the mark. Those who have not a well established strain of their own will find this the best time of the year to buy queens, and on more than one account. Prices may be lower than very early, while quality is likely to be better. The change of queens can be made without interfering with the honey crop as it might do earlier.

But the man with only 10 or 20 colonies will be likely to say, "I'd like to have the improvement, but rearing queens is something I've never done, and I can't afford to buy." Let us figure just a little on that. Suppose the average crop is 75 pounds, and that his honey brings 10 cents a pound. If he pays a dollar apiece for queens, it will take 10 pounds of honey to pay for the queen. If the queens he buys are

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only equal to the average in his yard, he will be out of pocket nothing except the trouble of making the change if he buys a new queen for a colony that produces only 65 pounds. If he gets a new queen for a colony that stores 55 pounds, he is a dollar ahead for his trouble. If he buys a new queen for the colony that stored only 25 pounds, he is \$5 to the good.

Nor does the matter end there. A change has been made, not only on the single crop, but it is more or less a permanent thing for future years. The presence in his apiary of those poor queens, with the chance of their drones meeting his young queens will be a constant menace, bringing down the average of his apiary.

We have supposed that the queens bought are only the equal of the average queen in his apiary. In too many cases the average of the apiary is so low that queens bought from a reputable dealer would bring up the yield *away above the present average*. In fact, it is not too much to say that many a bee-keeper could buy 10 or 15 good queens at \$5 each and make money by it. But when we get untested queens at a dollar each, or less, he is surely standing in his own light not to make the effort to replace extra-poor queens with those that are at least up to par; and in a number of untested queens he is likely to get some that are extra-good.

Black Bees vs. Italians

That vigorous Scotch writer, D. M. Macdonald, in a paragraph in the *British Bee Journal*, says:

"The Italian bee is an excellent bee, but it is not the *best*—at least, in all circumstances, in all localities, and in all countries. At last justice is slowly working towards a fairer view of the subject."

Then referring to the *American Bee Journal*, he says:

"The editor, a great stickler in the past for the pre-eminence of Italians, agrees that over a great part of Europe immunity belongs to the blacks rather than to the Italians."

As the paragraph is headed "Justice at Last," as Mr. Macdonald says "justice is slowly working towards a fairer view," and in that connection says the editor of this paper was a stickler for Italians *in the past*, it seems clear that Mr. Macdonald believes there has been a change of heart "in this locality" as to the comparative merits of the two kinds of bees. It is not so very strange he should have that view, but it comes from not comprehending the *whole* situation.

That there may be no misunderstanding in the case, it may be well to place here the Article of Belief held here at the present time. It is this: The black bee is *not* an excellent bee. As compared with the Italian, the black bee is not worth the powder to blow it up.

That expresses in brief the view held at the present time. It is the view that has been held in the past, and there is not an iota of diminution of the contempt in which the black bee has always been held.

The point in the case that Mr. Macdonald failed to get is that the two kinds of bees thus spoken of are blacks

and Italians as they average *in this country*. As to personal experience, there is no guessing in the case; we *know* that the blacks we have had are greatly inferior to the Italians we have had.

When a man of Mr. Macdonald's candor and intelligence says blacks are as good as, or better than, Italians, his word goes. Only it must not be forgotten that he is talking about bees as he sees them, and not about the bees of this country. Even at that, it is likely that there are black bees and black bees in Great Britain, for there are not wanting bee-keepers there who prefer Italians. Bee-keepers in this country are almost a unit in preferring Italians. On the other hand, they are very much united in Switzerland in preferring blacks.

According to foreign bee-papers, black queens from Switzerland have been sent to this country. It would be interesting if those who have received them would report as to their success here. The *American Bee Journal* will be glad to publish such reports.

Bees Cleaning Combs with American Foul Brood

Henry Stewart, reporting in *Gleanings* his experience with foul brood, begins with this rather startling statement:

"American foul brood can be cured without the loss of a particle of healthy brood or of a single diseased comb, and without interfering materially with the production of honey, a laying queen being on duty at all times."

Early in the season when half or more than half the combs in each hive contain as yet no brood, Mr. Stewart makes 2 colonies exchange combs, putting in No. 1 combs of diseased brood from No. 2, and giving to No. 2 broodless combs from No. 1. Generally No. 2 will be free of the disease.

His second method of treatment may be used at any time with a strong colony in a good flow. Here is the gist of it in Mr. Stewart's own words:

I prepare a hive with a set of clean combs, or with full sheets of foundation, in either case using a frame containing some honey and a small amount of brood taken from a healthy colony, placed in the center of this newly prepared hive. I next secure the queen and place her upon this frame of brood, and at the same time removing the old hive from its bottom-board, putting the new one on the old stand in its place. As soon as the field-bees have found their queen in her new quarters, I place the honey-board on top, and over it I put the old hive containing the diseased brood. Lastly I put on the cover and then let the hive alone for 2 weeks, at the end of which time it is well to remove any queen-cells that may have been started in the upper hive.

The set of foul-broody combs now becomes an extracting-super, and it should be left until all the brood is hatched and the combs are filled with honey. If the bees need more room, another story in extracting-combs should be added; and when these combs are filled with honey, it matters not how foul they may have been, they are now, together with the honey in the cells, as pure as the purest. As soon the new brood-nests become well stocked with brood they should be examined; and if in any of them foul brood is found, the set of combs above, as soon as all the cells contain honey, may be extracted, the queen placed on them, and the position of the bodies reversed and treated as at the start.

The honey-board mentioned is a "board of solid wood with the exception of a strip of queen-excluding zinc containing two rows of slots length-

wise through the center of the board." The object of this board is "to prevent, as far as possible, the siftings of diseased matter down on the brood-combs below from the diseased combs above."

If, in the foregoing, the word "American" be changed to "European," then it agrees entirely with what Percy Orton and others have done with European foul brood, being more or less a variation of the Alexander treatment. If it can also be applied to American foul brood, it will be worth thousands upon thousands of dollars. But if it is effective in getting the bees to clean out combs affected with foul brood of the American type, then all previous teachings have been incorrect. The regular Alexander treatment gives the bees a better chance to clean out the combs, one would suppose, than Mr. Stewart's treatment. And yet Mr. Alexander protested most earnestly that bees could not clean out combs affected with American foul brood, as the rotten brood was of such a gluey nature that it could not be dug out of the cells. On the other hand, in European foul brood the dead brood dries down in such a state that the bees can remove it.

There is still opportunity for many to try Mr. Stewart's cure the present season, and to settle the question whether bees can, after all, clean the remains of the dead larvæ out of the cells, the disease being American and not European foul brood.

The Anatomy of the Honey-Bee

The United States Department of Agriculture's recent publication, on "The Anatomy of the Honey-Bee" (Bul. 18 Tech. Series, Bureau of Entomology), embodies the results of detailed studies and should prove of value as bringing to bee-keepers reliable information concerning an insect of such great economic importance, and also as furnishing a sound basis in devising new and improved practical manipulations. The subject has been for years the object of study of many careful students; but the popular demand for information has also induced untrained men to write accounts of bee-anatomy containing numerous errors, and illustrated by drawings more artistic than accurate.

All practical manipulations of bees must depend upon an understanding of their behavior and physiology under normal and abnormal circumstances, and this knowledge must rest ultimately on accurate information, as to the structure of the adult bee.

Following a brief introduction the author first gives a chapter on the "General External Structure of Insects," and then taking up the honey-bee he gives a detailed description of the head of the bee and its appendages; the thorax and its appendages; the abdomen, wax-glands, and sting; and alimentary canal and its glands. He discusses the circulatory and respiratory systems, the fat body and the oenocytes, the nervous system and compound eyes, and the reproductive system. The text is profusely illustrated, 57 figures, including a full-page median longitudinal section of the body of a worker-bee, being used, all but 3 of

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which are new and original, having been prepared by the author with a thorough realization of the need of more accurate illustrations of the organs of the bee, especially of the internal organs.

This bulletin can be secured only from the Superintendent of Documents, Government Printing Office, Washington, D. C., as the Department's supply is by law limited to an edition barely sufficient to furnish libraries and the collaborators of the Department with copies. Price, 20 cents.

Putting Empty Supers On Top

There is a difference of opinion as to giving additional super-room. Some say put the empty super of sections on top in all cases, having supers thus finished more promptly, while others say put the empty super under the partly filled one, so as to encourage prompt beginning of work in it. Perhaps the best way is to do both. While a good flow is on, and there is every prospect of its continuance, one need not hesitate to add a fresh super under the first super when no very great progress has been made in the first. And in addition to this an empty super may be placed on top.

More than one reason may be given for putting this additional empty super on top. It serves as a sort of safety-valve. If the bees, for want of prompt attention, become in the least crowded for room, they can go above and commence work there. If they do not need the room, they can let it alone, and no harm is done. No harm, but some good. For this space above helps to prevent overheating in hot days, and so is a factor in preventing swarming. The bees may do a little preparatory work in this upper super, making it more acceptable to them when it is put under, so that they will commence work in it more promptly. With the best of care it may sometimes happen that a sheet of foundation is not sufficiently fastened in the section. One may not notice it; but let the super be put on next the brood-chamber, and a heavy mass of bees coming suddenly upon it causes the foundation to fall, making a bad mess. If it be first put above, there will be no heavy weight of bees upon it, and the bees will make it their first care to fasten the foundation properly. Even if it should tumble down it will not be so bad in the upper story as in the lower, for in most cases no honey will be in it above as there would be below.

from correspondents of the Department." Of course, the work must be "briefly" given to get it inside 44 pages of rather large print.

Commendable is the following paragraph to warn against illusionism on the part of the would-be bee-keeper:

It is a mistake, however, to paint only the bright side of the picture, and leave it to the new bee-keeper to discover that there is often another side. Where any financial profit is derived, bee-keeping requires hard work, and work at just the proper time, otherwise the surplus of honey may be diminished or lost. Few lines of work require more study to insure success. In years when the available nectar is limited, surplus honey is secured only by judicious manipulations, and it is only through considerable experience and often by expensive reverses that the bee-keeper is able to manipulate properly to save his crop. Any one can produce honey in seasons of plenty, but these do not come every year in most locations, and it takes a good bee-keeper to make the most of poor years. When, even with the best of manipulations, the crop is a failure through lack of nectar, the bees must be fed to keep them from starvation.

Death of A. J. King

A postal card received from W. A. Pryal, of Oakland, Cal., announced the death of A. J. King, at San Diego, Cal., June 24, 1910, of valvular heart trouble. The April American Bee Journal contains a biographical sketch of Mr. King, who at one time was quite prominent in American bee-dom.

American Bee Journal in "Australian"

The Australian Bee Bulletin is one of our most valued exchanges. At least 28 percent of the reading matter of the May number is copied from the American Bee Journal. As it is all properly credited, it shows a sincere appreciation of the contents of this Journal. We are glad to have our exchanges copy anything they like from our columns, when given due credit, as the editor of the Australian Bee Bulletin always does.

Foul-Brood Law in Ohio and—Illinois?

Ohio bee-keepers are feeling good over the fact that they have secured their foul-brood law, the Governor being too well informed to veto it. By the time legislative scandals are straightened out in Illinois, possibly there may be something doing in that State in the way of a foul-brood law. The opposition of a very small number of bee-keepers has been held accountable for the failure to secure a law; but it now begins to seem that such opposition may have had very little to do in the case. Bee-keepers had put nothing into the "jack pot," and so were entitled to no consideration! Let us hope that the cleaning up of the rottenness in the Illinois legislature may be so complete that there shall hereafter be no hesitation about passing a law so plainly in the interest of the general good.

Bees Leaving a Honey-House Through an Escape

E. D. Townsend has made a radical departure from the orthodox plan of letting bees leave a honey-house

Miscellaneous News-Items

How to Get Public Documents

There is an ever-increasing demand, on the part of the general public, for the publications emanating from the various Government Departments in Washington, D. C., and the fact that in the fiscal year ended June 30, 1910, more than half a million documents were purchased by people from every part of this country, and in foreign lands as well, at a cost of over \$87,000, is proof of the assertion that public documents have become a commodity that many thousands of readers are willing to pay for. At the same time the numerous inquiries, addressed to various officials, that are eventually referred to the proper official, indicate that, generally speaking, the public has but a very hazy idea as to how public documents can be obtained, and how their prices may be learned. To impart this information, an inquiry regarding public documents that may be addressed to the Superintendent of Documents, Government Printing Office, Washington, D. C., will meet with prompt and satisfactory attention.

A New "Queen" from Kingston

I am sure that many of the readers of the American Bee Journal will join me in congratulating the senior editor on the successful introduction of a new queen into his beautiful home. If that is a trifle enigmatical to some, let me say that the said editor was so fortunate as to be able to induce Miss Grace Hitchcock, of Kingston, Ill., to become Mrs. George W. York, July 2, 1910, being the exact date of said change of name.

But I am also sure that their congratulations can not be so hearty as mine, for not having known Miss Grace as I have, even

though a very short acquaintance, they can not know so well what a graceful and gracious personage she is—or was—with every prospect that Mrs. York will be equally graceful and gracious. A mere man may not always be relied on as a good judge in such matters, but in this case the judgment of the mere man is buttressed by the judgment of the female portion of his family—a judgment not to be disputed.

It will not be out of place to congratulate the readers of the "Old Reliable" upon the brighter and better journal they may now expect because of the brighter and better life upon which the senior editor has entered.

THE ASSOCIATE EDITOR.

The "senior editor" submits as gracefully as possible under the most gracious circumstances, to the publication of this unsolicited very congratulatory contribution from the junior editor, for the former doesn't wish to incur even the mildest displeasure of said latter junior editor. Suffice it to say, further, that the "new queen" is indeed a treasure; and if the old American Bee Journal isn't "brighter and better" from now on, it won't be from any lack of interest or desire on her part.

Government Bulletin on "Bees"

Under the tersely comprehensive title, "Bees," the United States Department of Agriculture has issued Farmers' Bulletin No. 397, as we announced last month. It is written by E. F. Phillips, Ph. D., contains 44 pages, and may be had free by applying to the Secretary of Agriculture, Washington, D. C. The aim of the bulletin is said to be "to give briefly such information as is needed by persons engaged in the keeping of bees, and to answer inquiries such as are frequently received

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through a bee-escape, and there is so much to commend it that the entire passage from the Bee-Keepers' Review is here given:

For several years we have been in the habit of stopping up our honey-house bee-escapes during extracting time, then opening them after getting through, thus allowing the bees that were carried in to escape. This worked well as far as the extracting time was concerned, but if there was a particle of a chance for robbers to get into the honey-house, this practice seemed to encourage it. It was noticed that while no robbers would seem to get into the extracting-house during the extracting, soon after the escapes were opened, and bees had gone home loaded with honey, a terrible "to-do" would soon be on; and if there was a particle of a chance, robbers would find their way into the house.

Sometimes the loss of mature bees by entering the honey-house for "stolen sweets," after extracting was over, would be more than all we had carried in on the combs. Knowing this, no bees are allowed to escape from the honey-house of their own volition, but, each night, or, better still, when through extracting at a yard, and the bees are clustered near each window, as at swarming time, the cluster is given a little smoke, then, with the Cogshall brush, the cluster is loosened and allowed to drop into a tin pail, or other receptacle, in which they are carried out into the yard and emptied near some colony weak in bees.

Handled this way, the bees go home loaded with honey, but know nothing about where they got it. This is so late in the day that robbers will not work, and, by morning, things have quieted down to such an extent that extracting may go on without any interfering from robbers. While the plan of carrying out the bees each night will work very well, usually, I recommend the leaving of the bees in the extracting-house until through extracting, when possible.

Bee-Disease Samples Wanted

We have received the following that should be of great interest to our readers:

The Bureau of Entomology desires to obtain information concerning the prevalence of brood diseases of bees in all parts of the United States. If either American foul brood or European foul brood occurs in your vicinity, or if there is any disease of the brood which is not understood, we should like to know it.

In view of the fact that these diseases are not always correctly diagnosed, it is very desirable for us to obtain a sample of the brood for bacteriological examination. If there is any disease of the brood in your own apiary, or near you, we shall appreciate it if you will send us a sample.

In order that samples may reach us in good condition, it is desirable that a piece at least 3 inches square be cut from the brood-combs and then kept in a dry place for a day or two before putting in the box to mail. Samples should be sent in tin or wooden boxes. Such a box will be sent on request with franks for mailing so that no postage will be necessary. *Please put your name and address on all samples sent in.* Results of the examinations will be sent out as soon as possible.

This information is desired for the purpose of sending out publications on these diseases to bee-keepers whose bees are in danger from disease, and in helping with the eradication of disease in any way possible. The name of the individual sending the samples is not made known to other bee-keepers in the vicinity. Any information which will aid us in combating these diseases will be appreciated, and will be a benefit to the bee-keeping industry. Your co-operation is requested.

Respectfully, E. F. PHILLIPS,
In Charge of Apiculture.

Address Dr. Phillips, Bureau of Entomology, Department of Agriculture, Washington, D. C.

Pennsylvania State Convention

The Pennsylvania State Bee-Keepers' Association will hold a convention Sept. 9 and 10, under the auspices of the Philadelphia Bee-Keepers' Association.

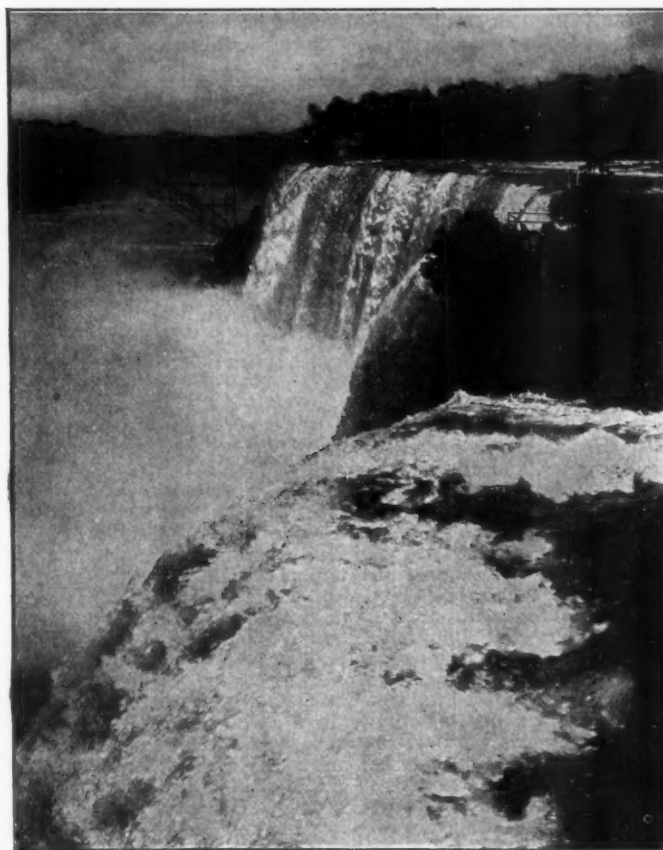
They will meet in the Philadelphia Commercial Museum, 34th St. below Spruce. Bee-keepers and others interested in bees and honey are cordially invited to attend the sessions. Delegates from the western and north-western parts of Pennsylvania will be enabled to take advantage of the low rates of fare of the seashore excursion trains to be run Sept. 8th. An interesting and instructive program now in preparation will be mailed when ready to all who apply for same to, A. F. Satterthwait, Secretary of the Pennsylvania Association, Middletown, Pa.; or to, F. Hahman, Secretary of the Philadelphia Association, Frankford Sta., Philadelphia, Pa.

National Convention at Albany

As announced last month, the 1910 convention of the National Bee-Keepers' Association will be held at Albany, N. Y., Oct. 12th and 13th, in the Common Council Chamber of the City Hall. The Executive Committee are planning for a great meeting. The time is a most favorable one for bee-keepers to

is required to stop at this Hotel, but we have found that it is always much more pleasant to have as many bee-keepers as possible stay at the same place. The little visits between the sessions are often almost as interesting and profitable as the convention itself. At any rate, the social opportunities of a convention are no small part of the annual gathering of bee-keepers, and these can be best improved if all who can do so will stop under one roof.

We are arranging to assemble a sufficient number of bee-keepers in Chicago, so that a special car may be had from here to Albany over the Lake Shore and Michigan Southern railroad. The train will leave Chicago at 10:30 a.m., Tuesday, Oct. 11, and arrive at Albany the next morning at 9:20 a.m., in time for the first session at 10:30 a.m. The round trip from Chicago will be \$28.20, the tickets having a 30-day limit, and include New York City. There will be stop-over privileges, either going or coming, at Toledo, Sandusky, Cleveland, Ashtabula, Erie, Buffalo, Niagara Falls, Rochester, Syracuse, Utica, Schenectady, and Albany.



NIAGARA FALLS—A WORLD WONDER YOU OUGHT TO SEE.

get away from home, as their fall work will be pretty much done by that time.

The Hotel Kenmore, near the Union Station in Albany, has been selected as headquarters for the convention. The rates for rooms are \$1.00 a day and upward; meals, 25 cents, 50 cents, and upward. Rooms can be reserved in advance by writing to the Hotel Kenmore, Albany, N. Y. Of course, no one

The best way will be for all of us to go right through from Chicago to Albany, attend the convention, and then after the convention we can scatter as we please, and return whenever we get ready, within the 30 days. Those who have never seen Niagara Falls will surely want to stop off there when returning. This alone will be worth the cost of the trip, although, of course,

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the main object is the National convention.

General-Manager France wrote us July 16th as follows: "Book me for your car from Chicago to Albany, in October."

We do not see why a sufficient number of bee-keepers can not be gotten together here in Chicago from the Southwest, West and Northwest parts of our country to make up a large carload. There should be at least 25 or 30 in order to have a special car. Surely, there will be more than that number who will gather in Chicago and be ready to go in the special car. Those who were so fortunate as to attend the Los Angeles and San Antonio conventions, will not forget their trips in the special cars that started out from Chicago. It was a continuous convention on wheels all the way through. There is no reason why the trip to Albany should not be equally enjoyable, although, of course, the distance is not quite so far as to San Antonio. However, the nearly-all-day ride from 10:30 a.m. until bedtime, and then the next morning until 9:20, will surely give abundant opportunity for visiting and having a good time.

Of course, if there are any bee-keepers between here and Albany who desire to join the special car as it stops at their railroad stations, they can do so. All such can learn from their local agents whether the train leaving Chicago at 10:30 a.m., Oct. 11, stops at their stations. If it does not, perhaps they can take a local train to one of the larger cities where it does stop, and in that way join the special car, meet all the bee-keepers, and go with them to Albany.

As soon as those who wish to join this special car will know definitely that they can do so, if they will let us know, we will make the necessary reservations. The sleeping car berth will be \$4.50 from Chicago to Albany for two persons, making \$2.25 each. Of course, the special car will be a Pullman sleeper, the same as we had when going to San Antonio.

It is important when purchasing your tickets, from whatever point you start, to be sure to see that they read over the Lake Shore and Michigan Southern railroad from Chicago to Albany, or New York City, as the special rate of \$28.20 for the round trip ticket includes New York City, if you wish to join the special car company. Those who have never been to that metropolis of the United States will also want to go there for at least a brief visit, if not for a day or two. There may be some, also, who will want to take in Washington, D. C., on this trip; but, of course, that would take an extra ticket from New York City and return.

Now, if there are any questions you would like to ask that are not covered by the foregoing, we will be pleased to have you write us, when we will give you any information that will be necessary. Let us of the West show our good Eastern friends that we are ready to co-operate with them in making the meeting of the National this year the largest and best in all its illustrious history. This will be the 41st annual convention of the National Association. As it begins its third score of

years we ought to make it a good introduction to the other 19 conventions yet to follow.

We are ready now to make reservations in the special car for all who desire to attend the convention with us. For same, please address this office, or G. K. Thompson, General Agent of the Lake Shore and Michigan Southern Railway, 180 So. Clark St., Chicago, Ill.

How about it, brother or sister bee-keeper? Will you go?

Paper Pulp to Plug Hive-Cracks

Here's something from Praktischer Wegweiser: Take old newspapers and put them in boiling water. This makes a stiff dough or putty, easily crowded into any hole or crack, which dries out in a short time and becomes quite solid.

No Foul Brood in Yakima Co., Wash.

We have received the following from J. B. Ramage, Secretary of the Washington State Bee-Keepers' Association, with the request that we publish it:

In the summer and fall of 1909 there was a report that foul brood existed in an apiary in the neighborhood of North Yakima. In the spring there were additional reports of the same character in the same neighborhood and in other sections. A sample of the so-called foul brood was exhibited at the April meeting of the Washington State Bee-Keepers' Association. Some of the members pronounced it foul brood, while others thought it was not. Judging from the description of "foul brood" from the apicultural authorities, and in view of the fact that the assembled members could not definitely assert that it was "foul brood," Pres. J. W. Thornton requested that two members submit samples from these hives to Dr. Phillips, in charge of Apiculture, at Washington, D. C. One member sent two samples, and the following report was made:

"The two samples of brood No. 1067, which you sent for examination, show no evidence of disease in either case. I certainly hope that European foul brood does not reach you. Truly yours, E. F. PHILLIPS, In Charge of Apiculture."

The other sample sent showed a light case of pickled brood. This shows conclusively that foul brood does not exist in this part of the county and State.

At a meeting of the Washington State Bee-Keepers' Association held in June, 1910, the Secretary was instructed to send this report to the bee-papers of the country, in regard to the absence of foul brood, as the report that foul brood may have gained some headway would prevent the growth of the industry in the State. J. B. RAMAGE, Sec. North Yakima, Wash., July 15.

Our First-Page Picture Gallery

The following are brief descriptions of the group of illustrations that appear on the front cover page of this number:

No. 1.—A Missouri Apiary

This picture shows some of the bees of the Rose Hill Apiary, owned by O. H. Brooks. It is located in a fine bee-country, in Howell Co., Mo.

Nos. 2 and 5.—Edwin Bert Morris

I am sending two pictures of my son, Edwin Bert Morris, age 4 years. He has absolutely no fear of bees; in fact, will scrape them up by the handful, and is in the bee-yard a great deal of the time with me. He is also familiar with all bee-appliances. I sent him to the shop, telling him to bring me six Danzenbaker fences, and although there were six different kinds of fences there, he brought me the right ones. Yonkers, N. Y. W. C. MORRIS.

W. C. Morris, Bert's father, is the general manager of the American Bee Products Company, producers of honey and beeswax, which recently has been incorporated in New York State. In July it was to have established its first apiary of 1000 colonies in Kingston, Jamaica, W. I., and increase as fast as possible to 50,000 colonies. A large bottling plant will be operated in New York City, and the product sold direct to the grocery trade. Agencies have been established in England and Germany. The directors of the company are J. S. Charleson, president, of New York City; A. B. Peters, secretary and treasurer, of Brooklyn, N. Y.; W. C. Morris, of Yonkers, N. Y.; Theodore Hess, of Paterson, N. J.; and Herman Neubert, of Brooklyn, N. Y.

This is a large undertaking in bee-dom, and will require expert management all along the line in order to make it a success. Although a risky venture, we certainly wish the new company every deserved success.

No. 3.—Mrs. M. C. Samuels and Her Handful of Bees.

I am sending a picture of myself, which is a little odd. I call it the "contrary queen," as it is a small swarm of bees that would not stay with anybody in town. They were hived by two or three people several times before I caught them. I hived them the next forenoon, but out they came full tilt, and I just caught the "little lady" queen and clipped off a wing; then she would not stay in one place at all, so I held her, and all the bees came and settled on my hand. I had a snap shot taken of the bunch, and then put them into the hive, but the bees got up and left the queen, and she died.

DAMP SALT BEE-STING REMEDY.

I also wish to give a remedy for bee-stings, as so many do not know what to do when stung, and it is bad for some.

I always take with me a lump of salt and a cup of water when I go to work with the bees. If I get a sting I salt it real heavy. Dampen the salt on the sting. After removing the sting with a sharp knife, apply damp salt at once, and you will hardly know you have been stung. It is so simple and so good that I think every one ought to know of the salt bee-sting cure. Asher, Okla. (Mrs.) M. C. SAMUELS.

No. 4.—Tenement Hives of W. L. Spink

I enclose a picture of my tenement hives, which I submit with the hope of drawing out a few comments from the veterans. Several young queens mated successfully from these hives last spring. The first hive on the right contains an Italian queen of last season, which is doing fine. I also have another Italian colony at an out-yard which I increased on the Alexander plan, but as Mr. Alexander failed to instruct us to put a frame of honey below with the queen, I lost about half the bees by starvation, as an unusual honey-dearth came on, and many, having new swarms, found them starved to death. W. L. SPINK.

Varysburg, N. Y.

No. 6.—Apiary of Frank Driesbock

I am sending a picture of my bee-yard (myself not included). I started in 1907 with one swarm that I found by the side of the road; they have increased until I now have 14. One remarkable thing is that I have never had a colony to die. FRANK DRIESBOCK. Verona, Wis.

Honey Crop and Bee-Supplies

Last month we published a few reports from dealers in bee-keepers' supplies. Since then the following have come in:

The Fred W. Muth Co.

EDITOR AMERICAN BEE JOURNAL:—The bee-supply and honey-business is everything that can be expected. As the winter losses in this neighborhood amounted to from 75 to

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85 percent, this locality had quite a set-back; in fact, it was almost a calamity. Nevertheless, the honey-flow this season has been beyond all expectations; any number of the bee-keepers around here report from 100 to 175 pounds of honey to the colony. The bee-supply business suffered to some extent, owing to the fact that almost every one used the hives they had on hand.

We are receiving many shipments of comb honey just now—it is in good demand, but the price must not get up too high, otherwise it will be prohibitive.

Yours truly,

THE FRED W. MUTH CO.
Cincinnati, Ohio, July 27.

Marshfield Mfg. Co.

Our bee-supply trade this season is as good as last season, if not better, in spite of the unfavorable honey crop last season, and the heavy winter losses of bees. One thing this season, we are in a better position to fill orders more promptly.

From reports from most bee-keepers there will be a very light honey crop this season.

MARSHFIELD MFG CO.
Marshfield, Wis., June 30.

Honey—Selling or Buying?

Have you honey to sell? Then why not offer it through the advertising columns of the American Bee Journal?

Do you want to buy honey? Then why not let your want be known through an advertisement in the Bee Journal?

A good many honey producers and buyers are losing by not using the advertising columns of the American Bee Journal. Why not send your advertisement to this office before the end of this month for the September number? The rate is only 15 cents per line, with 14 lines to the inch. About 8 words, on the average, fill one line of space. You might possibly get it into 3 lines, or may be 5 or 6 lines. And by running it from one to 3 times you might sell or buy all the honey you have for sale or want to buy, as the case may be.

A large firm dealing in honey, after running an advertisement in this Journal for 6 times, wrote us: "We are well pleased with results. It pays to advertise." It would doubtless pay you, too. Suppose you try it this fall, and see for yourself. Address, American Bee Journal, 146 W. Superior St., Chicago, Ill.

made on the latest plan. I have not any old-fashioned box-hives. I have starters in the frames, full sections, also starters in the sections in the supers.

Ought they to be fed while it is hot and dry? or is there enough for the bees to eat if it is dry?

I read the American Bee Journal closely, and like it very much, but it seems one has to have experience in taking care of bees to learn much. We keep the surroundings very clean. We hived one swarm of bees with a frame of partly filled comb in it from another hive.

MRS. E. P. DAY.
Bloomington, Ill., June 22.

It is nothing so very unusual for a swarm to act in the way you describe. Probably the queen will not—more likely can not—go with the swarm; and when the bees of the swarm find there is no queen with them, they return to the hive. Likely there is something wrong with the queen so that she can not fly, but crawls back again into the hive, only to issue again later in the day.

Generally there is no need of feeding when it is hot and dry, but sometimes there is need. If there is lack of stores in the hive, with danger of starving, then feeding is absolutely necessary. Sometimes it is advisable to feed even with plenty of stores in the hive. If the dearth of pasturage continues for a long enough time, brood-rearing may entirely cease. At such a time feeding every day, or every other day, will keep the brood going.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Swarming—Building a Bee-Cellar

We have moved to the northern part of Wisconsin, and are building a house and barn. We came from Platteville, 300 miles, and our 40 colonies of bees stood the trip well. We have had swarms, but as it was not possible for Mr. White to be in 20 places at once, he could not clip the queens' wings in May, so he destroyed the queen-cells. I am not sure this is correct, for what I don't know about the "warm-footed" little things would fill several books. They are working "like mad," and we hope to have some honey soon.

Our object in coming here where the "forest primeval" reigns, was to increase our bee-business, as there is, as a rule, an abundance of white clover, and we have 100 acres of basswood, more or less.

Mr. White is anxious to build the right kind of a bee-cellar. Have you any suggestions? (MRS.) F. P. WHITE.

Angus, Wis., June 29.

Cutting out queen-cells will usually delay swarming, but will not generally prevent it altogether. After they are cut out they will likely be started again, and sometimes the bees are so fierce about swarming that after cells have been cut out the second time they may swarm out in a day or two after. But we count a good deal on it in connection with ventilation clear through the brood-chamber—big opening at the entrance and a small opening at the back end above, with 2-inch space and bottom-rack under the bottom-bars—keeping out drone-brood, giving lots of super-room, and breeding from bees not much inclined to swarm.

Bee-cellars are generally cellars under dwellings, and it is well to have a good depth—8 feet deep or more—and to have the wall above-ground well banked clear to the top of the foundation. In your part of the country these things are important to help keep the cellar warm, for generally cellars in the North are not warm enough. If you could have a steady temperature of

about 45 degrees it would be all right. Then the cellar must be kept dark, but with sufficient doors and windows so that in warm times in early spring you can open up at night to cool off and air out the cellar. Good air in the cellar is not only important for the bees, but for the people over the cellar, and you must provide for it some way.

She Knows a Queen-Bee Now

The first year I kept bees I did not know a "king-bee" from a queen, and one day as I was taking sections of honey out of the super, using a dry-goods box turned upside down for a table, and a thin case-knife to pry the honey out of the super, a bee lit near me on the box. I said, "You are a funny looking bee," and pressed on its back with the flat side of the knife. I pressed some eggs out of it. Not for another year did I know that that funny bee was a queen, and as she flew away I supposed she went back to the hive, for I did not see her again. I have learned since to know a "king" from a queen-bee!

OHIO BEE-WOMAN.

After you squeezed the eggs out of that "funny bee," if you had followed it up, very likely you would have found that there was a funeral within a short time.

Colony Swarmed Out and Returned—Feeding Bees in Dry Time

DEAR MISS WILSON:—I have 4 colonies of bees now, one swarm, and bought a large colony in a Wenona hive (or made there). All have been working hard. The last 2 weeks have been very dry and hot. One colony swarmed, or what appeared a swarm, 3 times, but went back again into the hive. What was the trouble? There was one super on it. I thought they were crowded. I put on 2 more supers. I have 2 supers on 2 other colonies. What made them go out and come back again?

Some of our neighbors who have bees have the same trouble. They settled once, and before we could hive them they came back to the hive. I have nice, clean hives,

Little Girl Calls Honey "Bee Jelly"

I heard a good thing yesterday that seems to me worthy of a place in the American Bee Journal. I live in town and keep my bees a mile out on a farm. Recently I took out some honey, and left some at the house for the family. When they were eating dinner a little 3-year-old girl said, "I would like some more bee-jelly." Pretty good for a new name for honey.

The dry weather cut clover short, and the season is not a good one.

EDWIN EWELL.

Waseca, Minn., July 18.

Bee-Brush and Robber-Cloth

A brush is a very convenient thing to have in the apiary, and you will frequently have occasion to use it.

For a permanent brush probably nothing is better than the Coggs-hall. It is a long and very slim whisk-broom. It looks as if nearly all the broom-corn had been pulled out of it.

A better brush, although not so durable, is one made of something green. This does not seem to irritate the bees as the other brush sometimes does, if they are inclined to be a little touchy. If it were not for the bother and time of making, I know of nothing better. It has this in its favor—it is cheap, and you can always have a brush for the making. Almost any kind of weed will do, although some kinds wilt so soon that they are objectionable. Sweet clover and asparagus are fine; golden-rod and aster make good brushes, and even long grass will do. Be sure to make it big enough. Take a bunch with the handle as big as your wrist, tie it firmly with a string, and you have a good brush that will last all day.

Another thing that will be found

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convenient to have in the apiary is a robber-cloth, which is especially used when robber-bees are bothering.

To make this robber-cloth, take $\frac{3}{4}$ of a yard of heavy cotton-cloth, turn over the selvedge edges, making a hem a little over an inch wide. Put into these hems shot or something that will weigh them down, stitching it in at intervals so that it will not all slide to one place but weigh the cloth down evenly. Now take 4 pieces of lath about the same length as the hive, put the cloth of one side between two pieces of the lath, putting the lath so you will leave the same amount of cloth projecting at each end, and take wire-nails long enough to go through both lath and leave enough to clinch. Drive the nails through the cloth and laths, clinching the nails firmly. Do the same by the other side, and the robber-cloth is ready for use.

By taking hold of the lath on one side you can quickly throw this cloth over any hive that contains either honey or brood, over supers of honey, or any that is exposed to the robber-bees.

We feel that we cannot get along without our robber-cloths, and if you have never tried them I think you will find them useful articles to have in the apiary.

Melting Combs into Beeswax

Sadly I viewed the empty hives of my bees which I had depended upon to furnish me many a new gown this summer—all dead. But I must save what I could of their homes. I saved the straightest combs and hung them in a light, airy place for future use. I washed a phosphate sack clean, and put into it all the crooked combs it would hold. It weighed 6 pounds. I put it into a large brass kettle and filled it half full of soft water. I washed a hoe clean and pressed it down into the water. When I thought all was melted, "John" made a pair of squeezers for me, of two smooth pieces of boards with a door-hinge between. I held the dry end of the sack and John squeezed. We did a very good job.

OHIO BEE-WOMAN.

If Mr. Hershisser had the slumgum left after you squeezed out the wax with your boards, doubtless he would find a good deal of wax left in it. But it is not easy by ordinary means to get all the wax out.

Mother Graham's Birthday Celebration

At the beautiful residence of Wm. M. Graham, in Fort Worth, Tex., a dinner was given in honor of Mother Graham, in the celebration of the anniversary of her 80th birthday, June 12, 1910.

In the early 70's the writer made the acquaintance of Wm. R. Graham and family, at Greenville, Tex. Mr. Graham was a brick contractor and builder. He built the present court-house in Greenville, and many other structures now standing in that city. He was also one of the first scientific bee-keepers in the State, and in connection with the writer established the first factory for the making of bee-hives and bee-keepers' supplies in Texas.

In 1877 the State Bee-Keepers' Association was organized in Greenville, and Wm. R. Graham was for a number of years its honored president. For nearly 20 years the annual conventions were held at his residence, in the beautiful grove, among the bees of his extensive home apiary. He was loved as a brother by all who knew him. He died 7 years ago, and June 12th a family reunion was held, with mother, children, grandchildren, and great grandchildren, with a few old friends of the family present. The living members of this family today are mother, 3 sons, 2 daughters, 28 grandchildren, and 9 great grandchildren. There were present at this reunion: Mrs. Wm. R. Graham, of Greenville; Mrs. H. L. Russell,

of Weatherford; Mr. and Mrs. W. M. Graham, of Fort Worth; Mr. and Mrs. M. R. Graham, of Fort Worth; Mrs. J. W. Morrow, of Paul's Valley, Okla.; (Mr. John Graham, of Greenville, was not present.) Of the grand-children present were: Mr. and Mrs. Fred Erisman, of Fort Worth, Mrs. Erisman being a daughter of John Graham. W. M.

Many stories and reminiscences of old times were enjoyed. No one seemed happier than Mother Graham. Her children were there to honor her with their presence, her grand-children to do her homage, each striving to do something for grandma; and little Fred, her only great grandson present, seemed to think that the whole occasion



"MOTHER GRAHAM'S" 80TH BIRTHDAY PARTY.

Graham's children are Olin, Ernest, Clifton, Raymon, Vera, Little, and Aura. M. R. Graham's children are Margaret, Evelin, Aulton, and M. R., Jr. John Wesley Morrow, son of Mrs. Morrow, of Paul's Valley, Okla. Of the great grand-children only Fred Raymon Erisman was present. The friends of the family present were: Dr. and Mrs. W. R. Howard, Thos. H. Rattan, and little Miss Ella Louise White, all of Fort Worth.

The dinner was spread in the spacious dining hall of the handsome new mansion. The table was loaded with everything good—such a menu has never before been excelled in the South. There were baked turkey, chicken fried, smothered, fricasseed, baked and stewed; roast beef, roast mutton, baked fish with suitable dressing, fried fish, all sorts of gravies and dressings, fruits, pickles, sauces, salads, tomatoes, jellies, preserves, ice-cream, cakes, sliced pineapples, and many other dishes and delicacies "too numerous to mention."

was on his account. Four generations were present, and all was enjoyment, happiness and peace.

The photographer ended the festivities by making group pictures. Then the visitors sought Mother Graham, and many nice little speeches were made, wishing her many returns of the occasion, with all its happiness and joy.

Mother Graham is well preserved for one of her age. She can read the finest print without the aid of spectacles. Her hair is as black as in youth, with only here and there a silver thread.

Fort Worth, Tex. W. R. HOWARD, M. D.

Such gatherings as the foregoing are indeed very enjoyable, and are all too rare in this busy, work-a-day world in which we live.

Canadian Beedom

Conducted by J. L. BYER, Mount Joy, Ontario, Canada.

Honey Crop Report and Prices

Today (July 22) I have received blanks for honey crop report from Secretary Hodgetts. The committee will meet on Aug. 2, and consider the price to be obtained for the season's output. It is surprising?—or rather shall I say, gratifying—to notice that each year more and more bee-keepers report, and the great majority wait to hear from the committee before selling their crop. That the work is a great help to the bee-keepers goes without saying, and it is the best thing we have yet had in a step towards more systematic handling of the honey crop.

As to prices, it would be presumptuous for me to make any forecast, but it seems likely that, in view of the short crop, last year's prices will be at least maintained, if not increased.

The National at Albany—A Texas "Chunk Honey" Lunch

So it is settled for good that the next meeting of the National will be held at Albany, N. Y. That is really too bad, when so many of us Canucks wanted to have it in Toronto so as to entice a great number of our cousins to come over the border and see a really fine

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country. If correct, I believe Albany is somewhere near where the "buckwheaters" live, that we used to read about in the bee-papers a few years ago. Not being partial to buckwheat, it is consoling to know that the distance is not so far from Toronto but that we can take a lunch with us if we should decide to make the trip. Seriously, though, a lot of us would like to have had the meeting in Toronto this year; but instead of being discouraged we will keep a-doing for future favors, although this fall we will be sure to hear, "It's in the East this year; send it West next."

Since writing the foregoing I have had the American Bee Journal in front of me, and happen to notice that it is the intention of our genial secretary, Mr. Scholl, to be at the Albany meeting. That settles it as to the lunch question, as he will be sure to have some Texas "chunk honey" with him, and I will impose on his hospitality for the refreshing of the inner man, if it should be my good fortune to be able to attend the meeting.

Steam-Heated Uncapping-Knife Best

Today we finished extracting our clover honey—all being left on the hives till the season was over. There is just enough basswood honey coming in to keep the bees from robbing, and to make the work pleasant. Five days steady going, handling combs all the time, has made my finger ends so sore that I can hardly strike the keys of the type-writer, yet I suppose we would not object if the work lasted another 5 days.

We have used a steam-heated uncapping-knife for the first time, and Mrs. Byer (who is "uncapper-in-chief" in our honey establishment) says no more cold knives for her. As another user has said, it is a "slick shaver," all right, and saves a lot of muscle. It has the fault of sealing over a few cells of honey with wax now and then, but not as many cells are closed as is often done with a cold knife in thick honey, as the best of operators will occasionally do a little "gumming." The steam-heated knife has come to stay, and my half dozen other honey-knives will not be used much in the future.

Rapid Loss of Old Bees

In speaking of the very backward weather we had the past spring, I am made to say that the cold unseasonable weather lasted right up to May 12th (page 219), while, of course, it should be June 12th.

In the same item the writer promised to say more next month about the bees being in none too good condition at the opening of the flow—said flow of honey being heavy only a few days at the start of bloom and then very indifferent afterwards. I have already said that the bees were not ready for the flow at the start, so it is needless to say that our crop from clover is very light—about 35 pounds per colony, whereas last year it was over 100, and nearly all of it gathered in about 10 days.

Now the interesting and unsolved problem about the matter, in so far as its scribe is concerned, is as to what

what caused our old bees to drop out of sight just at such a critical time after they had been so very populous all spring. Numerous writers have been saying that during the cold weather their bees stopped brood-rearing, but this was not the case with us, as nearly all colonies were jammed with brood with the opening of the flow, but there was not enough old bees to care for this brood and still have a big field-force to spare. The scarcity of field-bees was only for about 10 days, but after that the clover yielded very poorly.

While we have had many theories advanced as to the loss of the bees, the only one I accept is the fact of the bees being bare of honey from early spring, as was the case with 75 percent of the bees in Ontario this past season. Against my will I had to feed sugar syrup to most of the colonies, and while they never were short of unsealed stores, yet all colonies so treated were in poor shape at the opening of the flow, while some 40 that had enough honey, and were not fed a drop of syrup, came up to the harvest in rousing shape, and stored more honey in the same apiary than twice their number of sister colonies that had been fed sugar syrup all spring. For winter food, sugar is all right, but for spring—well, that is a different story, and I would rather have 20 pounds of honey in the hives on May 1st than 40 pounds of syrup to be fed regularly with no honey present in the hives.

As I have said, previous to June 12th the weather was very unseasonable, and I have an idea that the old bees were lost in a vain attempt to get pollen, as sugar syrup, as we all know, is no good alone for brood-rearing. I have always been opposed to spring feeding, and it is needless to say last spring did not make me any more favorable to the practice. It is common to hear about sealed stores being in the hive, and the bees failing to uncup and use it for brood-rearing. However that may be with others, it is not so with my bees—probably because of a good deal of Carniolan blood among them; but whatever the reason, I know from actual experience that if I have an abundance of sealed stores in the hive in early spring, my bees always come into the harvest boiling over and ready for the first honey that may come along—and this without my having to do a bit of feeding.

Last spring the honey was absent, and so now is a good part of the crop of honey which should have been secured from the clover this year. Basswood has been yielding a bit the last few days—the first in 8 years, so it is indeed quite a novelty for us to get a taste of the honey again. Prospects are real good for buckwheat—the first smell of which was noticed today (July 22). With a big acreage of this plant this year, and with the bees in splendid condition, we are thinking that perhaps our main crop will be after Aug. 1st—quite a change from only 5 or 6 years ago, when a field of buckwheat was quite a curiosity in our neighborhood. Fighting bad weeds explains this, as the farmers can work the ground well up till July, and then have a crop afterwards.

Drone-Comb for Extracting-Supers

Every once in a while some one will advocate the use of drone-combs for extracting-supers. This advice is surely a delusion and a snare, as the writer has found out to his sorrow. The most of my bees, through force of circumstances, have been bought from others, and as a matter of course in their original shape there was a lot of drone-comb in the brood-chambers. As long as this was the case, drone-comb in the supers made little difference, but when I gradually got most of the drone-comb out of the brood-chambers, and then gave the drone-comb supers, what a change was noticed!

A few years ago I had our super-combs badly filled with pollen in an off season, and the following winter I cut out semi-circles of the combs where the pollen was, and allowed the bees next spring to fill up these holes—with drone-comb, of course. A foolish thing to do, but then I didn't know any better, and only got wise in the matter by hard experience the following summer, when the bees would absolutely refuse to store honey in these drone semi-circles, even when crowded for room—they seemed to think that drones were to be reared, and lacking accommodation in the brood-nest, they expected the queen to come and occupy this nice center of the extracting-super.

This summer I have had a number of cases like this, and when the drone-comb was removed and substituted with a worker-comb, the latter would be filled with honey at once. I tested the matter in a number of cases like this, and every time the result was the same. Practical demonstrations like this are, in my judgment, worth a whole lot of theories, and I certainly shall try to get rid of a lot of my drone super-combs as fast as possible. For the buckwheat flow there is not much difference, if any, in the matter of drone or worker combs, for at the time of the year that the buckwheat blooms, drones are a bit out of season, so to speak, and the bees will then just as readily store in drone-comb as they will in worker-comb.

"The Honey-Money Stories"

This is a 64-page and cover booklet, 5¼ by 8½ inches in size, and printed on enameled paper. It contains a variety of short, bright stories, mixed with facts and interesting items about honey and its use. It has 31 half-tone pictures, mostly of apiaries or apiarian scenes; also 3 bee-songs, namely: "The Hum of the Bees in the Apple-Tree Bloom," and "Buckwheat Cakes and Honey," and "The Bee-Keeper's Lullaby." It ought to be in the hands of every one not familiar with the food-value of honey. Its object is to create a larger demand for honey. It is sent postpaid for 25 cents, but we will mail a single copy as a sample for 15 cents, 5 copies for 60 cents, or 10 copies by express for \$1.00. A copy with the American Bee Journal one year—both for \$1.10. Send all orders to the American Bee Journal, 146 W. Superior St., Chicago, Ill.

Southern Beedom

Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

The Texas Bee-Keepers' Association

I have received the following program which will be taken up at the next meeting of the Texas State Bee-Keepers' Association, which will be held at College Station, Tex., during the meeting of the Texas Farmers' Congress, July 26, 27 and 28, 1910. This will be a big event at the College, and it is hoped that there will be a large attendance from all parts of the State. The program is as follows:

Roll call.
Prayer—Rev. W. A. Sampey.
Appointment of committees.
Reception of members.
President's Address.
"Systematizing the Membership of the Association"—W. T. Childress and Louis H. Scholl.
"The Necessary Qualifications of the Beginner in the Bee-Business"—F. L. Aten and D. C. Milam.
"Queens, Honey, or Bees—Which Pays the Best?"—W. H. Laws and W. O. Victor.
"The General Habits of the Honey-Bee"—C. B. Bankston and Ernest E. Scholl.
"The Hive Best Adapted for All Purposes"—Willie Atchley and Jno. W. Pharr.
"The Progress of Bee-Keeping in Our State as Compared with Other States"—Louis H. Scholl and L. R. Dockery.
"How to Create and Maintain a Uniform Honey Market"—O. P. Hyde and W. W. Mayfield.
"Supplies for the Apiary—What I Recommend and Why?"—Udo Toepperwein and W. H. White.
"Is it Profitable for the Honey-Producer to Rear His Own Queens?"—Grant Anderson and J. W. Taylor.
"Out-Apiaries and their Management"—J. B. King and W. C. Collier.
"The Comparative Merits of the Deep and Shallow, and the 8 and 10 Frame Hives"—J. M. Hagood and W. C. Conrads.
"The Best Methods of Artificial Increase"—T. P. Robinson and W. H. Laws.
"Does a Man Have to Know How to Rear Good Queens to Be a Successful Honey-Producer?"—W. O. Victor and F. L. Aten.
Reports of committees.
Election of officers.
Adjournment.
NOTE.—The Question-Box at close of each session.

Honey-Dew—Laying Workers, Etc.

We have had the heaviest "honey-dew" flow ever known in this part of the State. We have tons of the stuff. What are we to do with the black stuff?

LAYING WORKERS!

So Mr. Latham thinks that laying workers are not so common as some would have us think. He seems to believe much of the work done by supposed laying workers is done by undersized queens. "Allen," you are wrong. (See Gleanings, page 345.)

MUCH SWARMING.

This has been a great year for swarming in this part of the State. Bees have swarmed and re-swarmed, and kept up swarming with the result that those of us who have out-apiaries have lost more swarms than usual.

INTRODUCING QUEENS.

This may not be new, but I will state

it for the benefit of those that are interested. I find that queens that have been laying for only 2 or 3 days are very much harder to introduce than those that have been laying for some time.

WHEN BEES GNAW COMBS.

I don't like to hold opposite views in apiculture with such men as J. E. Crane, of Vermont, but if he believes the bees in Vermont gnaw combs "just because they want to," and rebuild it with drone-comb, I am almost positive he is mistaken. Bees gnaw down combs from two causes, and rebuild with drone-



ONE OF SCHOLL'S ASSISTANTS READY TO TAKE SUPERS OFF.—See page 254.

comb: Defective combs, and want of wax when no honey is being gathered. No, Mr. Crane, bees don't gnaw down combs in Texas "just because they want to," and rebuild with drone-comb. (Gleanings, page 378.)

DELAYS OF GOODS ORDERED.

I wish there was some way to compel bee-supply dealers not to accept orders for supplies unless they could, or would, fill them in a reasonable length of time. I have had heavy losses for two years in succession because I could not get my honey cans ordered from 2 to 3 months before needed each year. This was not caused from delay in transit, but because they were not shipped.

THE DROUTH AND HONEY-DEW.

We are in the midst of another serious drouth in our portion of the "Lone Star" State, and if we don't have rain immediately our crop of light honey will be very short. The drouth, though, is favorable for the honey-dew, of which we already have a large crop—very much more than we want. If any one knows where we could find a market for the stuff I would be pleased to hear from him. It's almost as black as ink, and the flavor is anything but good. Such is honey-dew in Texas.

"REAL" AND "INSECT" HONEY-DEW.

D. M. Macdonald, of Banff, Scotland, seems to favor the belief that there is a real honey-dew (June 15th, Gleanings, page 388). The subject is a rather deep one for an uneducated person to deal with, like the writer, but it would take more evidence than has been yet furnished to convince me that the so-called honey-dew is anything but the excretion of insects, and never a secretion of the leaves of trees. Of course, we have some plants that have nectar-glands, such as the cotton-plant, cow-peas, etc., that secrete nectar; but could this be called "honey-dew?" I think not.

L. B. SMITH.

Rescue, Tex., June 23.

Bulk-Comb Honey Production

We have already produced, up to this time, 18,000 to 20,000 pounds of bulk-comb honey for our spring and early summer crop. This was unusual, as, in the localities where our apiaries are, we do not usually "figure" on a spring crop, but depend upon our main crop from cotton and other sources later in the summer and fall. We have a spring crop every few years, however, and when we do it is just that much in addition to the main crop, since one does not depend upon another. That is to say, we can more safely figure on our summer and fall crop, no matter whether we have a spring crop or not. If our crop yet to come equals our average we have obtained year after year, we may safely figure on more than twice as much more of bulk-comb honey than we have already obtained.

Now, it must be explained that nearly all of the above has been comb honey only, without the extracted honey added to it to make "bulk-comb honey." Since we have produced, comparatively, only a very small amount of extracted honey, we have had to resort to buying this with which to pack the comb honey. Consequently we have bought over 25,000 pounds of extracted honey, of which the greater portion has already been used for the above purpose. This brings our output (not entirely our own production altogether) up to quite a large figure.

The bees are in fine condition and are at work mainly in cotton-fields now. The prospects from this source are very favorable. It must be considered, however, that our bees have not been managed entirely for a honey crop, in which case a much better showing would have resulted. Instead, most of our apiaries were run for increase, the majority having been in-

creased 50 percent and more, and the honey crop was "just taken along as a side-line." The reason of our extensive increase each year is because we have to about double our output each

supers, and many 7, while some had 8 supers. The yard averaged 180 pounds per colony of all comb honey, which sold at an average of 12 cents per pound.

You will notice that the divisible-brood-chamber hives, and the same kind of shallow supers, are in evidence in all the pictures. This is not only my

favorite, but it is the best hive and super arrangement that I know of for bulk-comb honey production.

The outside of the hives look well enough in the pictures, especially if you can draw on your imagination a bit as to what *might* be inside of those "stacks!"

Next month I'll show you the inside.



SCHOLL'S FAVORITE FOR BULK-COMB HONEY
—THE DIVISIBLE HIVE.

year to meet the increasing demand for our product—"bulk comb honey."

Four years ago, 7000 pounds was our largest output up to that time, and we thought it an enormously big crop (for an enthusiastic, young, extensive beekeeper, of course). The following year it was 20,000 pounds, and the demand far exceeded the supply. This was followed by over 51,000 pounds last year, with a demand over the supply amounting to 6 or 7 carloads more. What the total output will be this year we can not yet say, but we have more than doubled our number of colonies by increase and buying, that we had last year.

This only shows how one can grow into a business, and, also, that *bulk-comb honey production is a success.*

How Bulk-Comb Honey Production Looks in the Apiaries

The accompanying pictures will give the reader an idea of how it looks to have a large crop of bulk-comb honey "stacked up" on the hives in the apiaries. These "snaps" were taken at different times and in different places, just before the first supers were being removed. Several of the yards, where the honey-flow was the best, averaged 6 supers to the hive of finished product. At one of the yards all the honey was left on until after the honey-flow, and it was a sight worth seeing. While a few colonies only had 2 and 3 supers on them, the greater part averaged 6

Contributed Articles

The Strange Season of 1910

BY HON. EUGENE SECOR.

Was it Isaac Watts who wrote something like the following lines—a poem more familiar to the last generation than to this hurrying, scurrying age?

Judge not the Lord by feeble sense,
But trust him for his grace;
Behind a frowning cloud he hides
An ever-smiling face.

At any rate, that fact has been again demonstrated this very season. What looked like the blackness of despair has been turned to golden fruition so far as bee-keepers in this bailiwick is concerned.

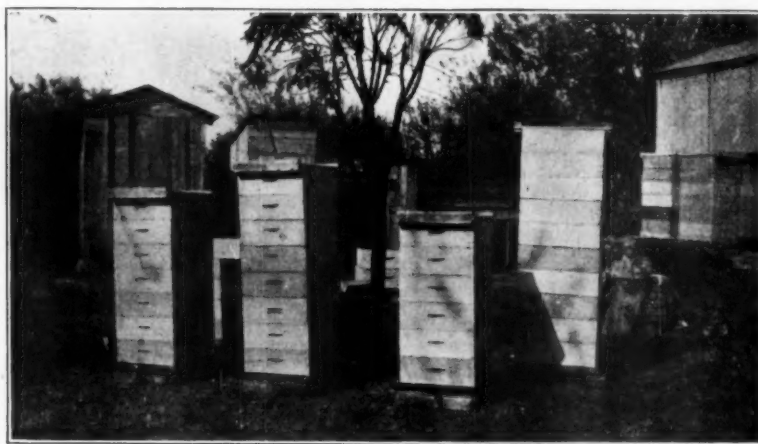
This has been an abnormal year. Nothing like it is remembered by the oldest inhabitant.

Nineteen-ten will long be referred to as a freaky season, and I reckon that in the next generation fathers will regale their children with stories of the olden time when March and April changed places, and when the apple-blossoms were frozen as stiff as wax flowers; when pie-plant a foot high lopped over and gave up the ghost; when box-elders, white elms, and soft maples

light underwear, and had gone off on his summer vacation!

But you can't always tell what that captivating maiden called "Sunny Alberta" has up her sleeve. She's a coquette. She likes to make us believe she loves us when she's flirting with the other fellow. When we had taken her at her word and had donned our most beautiful garments, she turned the cold shoulder, and with a countenance that froze the very marrow in our bones she said she never loved us. Worse than that, she let loose the cohorts of her lover Frost King, and tried to compass our ruin. The battle was short but furious. Dead hopes lay thick upon the field. We cried out in our childish way, "The day is lost! Everything is gone!"

The basswood's tender shoots shriveled and fell, and even the hardy clover leaves wilted and looked like the blackened corpses of their former selves. Apples, plums and cherries were in full bloom, or had started fruit, and the bees had been reveling in unseasonable luxury. But instead of elysian beauty the wreckage of heaven lay about us like a pall after the blast from the regions of perpetual snow.



A BUNCH OF SCHOLL'S STACKS OF DELICIOUS SWEETNESS.

were caught flinging their banners to the breeze, inviting to the feast the bees; when the willows, cottonwoods and all the hardy race of early-leaving shrubs and perennials put out their tender shoots early in April, just as though Jack Frost had gone out of business, shaven off his beard, put on

What fools we mortals be! How short-sighted is the mortal vision? In 30 days Nature had mercifully covered up the dead by a new growth that looked fresher and greener than the first. Many plants—grapes for example—put out blossoms and formed fruit on the second growth. Strawberries,

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though discouraged at first, matured quite a good crop from late blossoms. Basswood bloomed quite profusely, and, what is better, is yielding nectar. We are now in the midst of the linden

the thinner it became, until often, by the time I cased it, a section could not be turned upon its side without this thin honey dropping out and daubing everything upon which it fell. From

and top side down, then laid it flat down on a table and left it. After looking over the honey all I cared for, we came back to the table, when I picked up the section and there was not a particle of drip about it or on the table. As I remarked on how nice such a condition was, he picked up one he had brought from the hives an hour or two before I came, when upon going through the same proceedings, it not only "leaked" in handling, but dripped several drops on the table. I now saw what was the remedy for my trouble, for up to this time I had always kept my honey in some of the rooms on the lower floor at the north side of the house. I thanked Mr. B. for what I had learned, and stored the rest of that year's crop in a south chamber, which, with the 1½-story house which I then occupied, was so close under the roof that it was too uncomfortably hot to sleep in during the summer months. When getting this part of my honey ready for market, it was such a comfort in not having a particle of drip from the unsealed cells, that I resolved when building a shop and honey-house combined, I would paint that part of it black in which the honey was to be stored. On thinking the matter over, I saw that this honey-room should be in the southwest corner of the building, and so it was located there.

After building and locating it as above, the mid-day and afternoon sun would heat this room to 90 and 100 degrees, and in very warm weather it would sometimes go to 106, on account of the black paint absorbing the heat to such an extent. I often feared there would come a time when it would rise to so great a heat that the combs in the sections would melt down; but it never did. When I would get from 1000 pounds to several tons in this room, the whole would become so warm during the day that it would act as a kind of "balance wheel," and thus the temperature would remain from 80 to 95 degrees the whole 24 hours, unless we had several days of cool or cloudy weather, as the honey heated during the day would hold its heat well up to the next forenoon, and again in turn hold its cooler degree, obtained during the night, well up toward the evening of the next day. Later on, when I came in possession of an automobile, I added a "wing" to the south side of a building, covered this with a paper roofing, and painted the wing and roofing with a red paint, using a part of the room for the auto, and a part for storing section honey and getting the same ready for market. In order that I might work at any of my various occupations during the winter months, I put a stove in this wing, and herein I found an additional comfort about the ripening of my section honey.

At two different seasons, with the room in the shop, there came one of those damp, cool times when the air is almost "wringing wet" with moisture, during which the sun was not seen for a space of from 10 days to 2 weeks. I now found that the black paint was no better than white, nor was this room better during such a spell than was those I had formerly used on the north side of the house; the result being, that at the end of these spells the



A PROFITABLE CORNER IN ONE OF SCHOLL'S APIARIES.—See page 254.

harvest, and the perfume cheers the bee-keeper's heart.

The best crop of white clover honey has been secured that we have had for many years. Supers are piled three and four high on the best colonies. We have the finest honey ever put up by those matchless alchemists—the bees.

The season has been hot since the middle of May, with little rain, but everything is looking well.

Many bees were in poor condition in the spring, and where not fed the loss was heavy. The owners of such are not bragging. It is another instance in proof of the wisdom of keeping the pitcher right side up, even if it doesn't rain honey.

Forest City, Iowa, July 15.

Ripening Section Honey

BY G. M. DOOLITTLE.

A correspondent writes me that he prefers not to shake the bees all off his section honey, but desires quite a few left on, when he puts the surplus in the box under the cloth, to rid the same of bees; for before they come up on the cloth to get out each bee fills itself with honey, and this honey is always the thin honey in the unsealed cells which are around the outer margin of the sections. And the more of this margin honey the bees take out the better, as it saves its dripping out from these few outside unsealed cells when scraping the sections and putting them in the cases for market.

These words carried me back to the time when I used to store section honey in a room on the north side of the house, as I then thought that the cooler honey was kept the better. But I found by thus keeping the honey in the few unsealed cells next the section, which many colonies insist in leaving without capping, kept thin, and the longer the honey staid thus stored before it was gotten ready for market,

this I thought I had struck a bright idea, when I told all the bee-keepers who visited me that all sections should be kept right side up at all times if we would keep things tidy and slick and inviting about our product. Of course, the *apiarist* could do this; but how about the merchant who bought it and the consumer?

For several years I sold my honey to the same merchant, and I well remember taking a sample section of snow-white honey to him, and the first thing he did was to turn the section down flat in his hand, as his eyes looked admiringly upon it; but said gaze was only momentary, for the honey from the unsealed cells, which I had been so careful to keep in place, was dripping down between his fingers, which caused a feeling other than admiration to come over him. I then gave him a lesson in handling honey, and never afterward did I see him handle honey except in an upright position. But however well a few could do this, the great mass were sure to do just the thing my merchant first did, so that the many would become disgusted with the "dauby stuff," even if the bee-keepers and the merchant did not.

After studying on the matter for some time, I chanced to see Mr. Bet-singer, who had been brought up among the bee-keepers living about "Father Quinby," and while there I went to see his honey, which was kept in a small building a few rods from any other, the same being only about 8 feet high, and having a rusty tin roof on it. As we went in I remarked about the great heat inside. He told me that this was as he desired, for this great heat ripened his honey so that it was thick, never sweat or turned of that watery appearance so often seen when honey was stored in a cool or damp place; and best of all, it never leaked so as to daub things.

Acting upon what he had said, he picked up a section which had been in the room 10 days, or such a matter, and turned it over backwards and forwards

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honey had gathered dampness not at all pleasing to me. But with the stove I was master of the situation, even did "Old Sol" see fit to hide his face behind the cold, black clouds for 2 weeks at a time, and the honey was going right on ripening and thickening all the while, even if I delayed getting it ready for market till the shorter days of fall came on with frosty nights.

By thus having my honey thoroughly ripened till it was so thick that it would hardly "run," when a section dropped so as to be broken on the floor by some carelessness on my part, I found that far less would be damaged in shipping, stay much longer in good condition when stored in the warehouse of the merchant, and give far better satisfaction to the consumer.

Borodino, N. Y.

Long-Tongue Clover Queens, Etc

BY G. C. GREINER.

It is not my intention to flatter any one, but I believe I can truly say that Mr. Byer always presents his subjects in such a common-sense sort of way that his articles are not only interesting but instructive at the same time. Although I do not see things always as he does, I agree with him on many points. On page 332 (1909) he says:

"The long-tongue-idea, in so far as it refers to the different races, is pretty much a humbug." This is exactly my opinion. I always thought so, and I think so yet, and the reason why I have never expressed myself publicly in such a decided way is because I was waiting for some good authority to bear me out in it.

During a bee-keeping career of about 34 years, my banner colonies that produced the heaviest yields of honey have always been blacks or hybrids—never Italians. A year ago last summer I had one Italian queen that did better than anything else I had late in the season, but her aggregate yield was below that of many others in the yard. The colony that produced my largest yield last season—about 265 pounds of white clover honey, gathered in less than 20 days, and from 45 to 50 pounds of buckwheat honey—were a mixture of one Italian to three blacks—hardly enough Italian blood mixed in to call them hybrids. Where does the long-tongue feature come in, in this case? Have they retained it as an heirloom from some of their ancestors?

On the other hand, I have all regard for the sincere intentions and claims of our long-tongue queen-breeders; their efforts to benefit mankind are very commendable, but, in my opinion, they are deceived. It is with the long-tongue theory the same as it is with all our imagined successes. At first we feel a little skeptical ourselves, but we keep harping on our pet theories from one year to another until we believe them ourselves, while the world at large is laughing at our foolish notions.

BEE-TIGHT HONEY-HOUSE.

On the same page, Mr. Byer makes some remarks on the bee-tight honey-house question, and I indorse all he says in its favor. A bee-tight honey-

house is certainly a bee-keeper's desideratum. I can tell Mr. B. that my honey-house is not only bee-tight, but fly and mosquito tight also; and that isn't all, it is as mouse, rat and squirrel proof as it is bee-tight. To read Mr. B.'s squirrel experience is quite amusing. I would not advise any of his squirrels to enter my honey-house uninvited; I would make their visit so decidedly unpleasant that they would not call a second time.

When I built my present honey-house, some 8 or 9 years ago, I intended to use it as a fumigating box whenever necessity should require it. But during all this time I never had any real occasion for this purpose. I fumigated once—the second year it was built—just to see how it would work in case of need. I noticed a few webs among the combs on the comb-shelves, and for an experiment I set the sulphur smudge a-going. It made such a complete job of it that I could not ask for any better arrangement. And in regard to mice or rats, I never had the first sign of either. I am so completely set against these vermins that I would leave, if they wouldn't. But I venture to say, that their stay would be extremely short, if any of them would risk their poor carcasses inside of my honey-house. There is no hiding-place anywhere. The whole building—floor, sides and roof—is made of matched and dressed lumber; doors and windows and all joints are as close-fitting as mechanical workmanship could make them, so that the building itself is a trap for all undesirable visitors that get inside of it.

BUCKWHEAT SWARMS.

As a rule, we have no buckwheat honey to speak of in this locality. The conditions Mr. Byer describes in his article on the same page, nearly covers my case. Although he beats me a little on the surplus, I can "go him one better" on the time of issue. A year ago last summer we had an uncommonly heavy buckwheat flow during the second half of August, which changed to a continual flow from fall flowers, lasting until the middle of October. Contrary to former experiences, I had a regular buckwheat swarm on Aug. 16th, and still another on the 26th. Both swarms were equally as strong as any regular prime swarm in June, especially the second one, which I hived on a set of empty combs, expecting to supply them with the necessary winter stores by exchanging some of their empty combs for heavy combs of honey. During the few weeks following they grew so heavy that I considered them all right without any extra feeding; and when I requested a bee-keeping friend, who called at the yard later in the season, to lift this hive, he was surprised when I told him the date of their issue. They actually seemed, as Dr. Miller says, nailed to the ground.

But I made the mistake not to provide them with a set of extracting combs, for undoubtedly they would have stored some surplus. It is often on account of our own neglect that we are the losers. As we can not foretell the season, it stands us in hand always to be prepared for just such emergencies. With the honey-producer, a few

days ahead or behind-time will many times make all the difference between gain or loss.

La Salle, N. Y.

Nosema Apis—A Bee-Parasite

BY C. P. DADANT.

This newly discovered parasite of the honey-bee is not yet proven to be the cause of the spring diseases of the bee—dysentery, diarrhea, paralysis or May disease—and I fully agree with the editorial in the American Bee Journal for June, concerning the needlessness of worrying about its discovery. There would rather be cause for rejoicing that another step has been made which may enable us to conquer diseases already existing, but which have thus far been permitted to thrive until they naturally worked themselves out.

I repeat it, it is not at all proven that *Nosema Apis* is the cause of bee-diarrhea, constipation or May disease, however probable it may seem. It is true that Dr. Zander has succeeded in reproducing the disease by feeding colonies with honey mixed with excrements of diseased bees containing this parasite. But the English scientists had already pointed out what they thought to be the cause of these spring diseases; some of them described a bacillus which they named "bacillus depilis," owing to the hairless appearance of the diseased bees. Cheshire also described what he called "bacillus Gaytoni," charged with the same misdeed.

In order to be able distinctly to trace a disease to a certain organism, it is first necessary to single this organism out from among the thousands which inhabit every living or dead body, make cultures of it containing no other organism, and then succeed in producing the identical disease with these cultures. Failing in this, or doing what was done by Dr. Zander, you can only surmise concerning the probability of this parasite being the true cause, and not a result, of the disease. What happened concerning foul brood is an evidence of the correctness of this. Dr. White, of the bacteriological Bureau at Washington, has clearly shown that the true bacillus of malignant American foul brood could not be cultured on ordinary bouillons, beef broth, etc., but could be reared only on larval food. When by the help of the microscope you investigate the domain of the infinitely small, you meet thousands of different organisms, animal and vegetable, and in order to find the guilty one you must breed them in turns and test singly their powers for harm, if you wish to be positively sure.

The Germans themselves long ago thought to have detected the cause of the May disease, and described a micro-organism which they called "mucor mucedo," of which T. W. Cowan gives a description in his "Guide-Book," page 187, and through the action of which these scientists explained the diseased bees' inability to fly. This inability is well known, and is one of the reasons for naming the disease "paralysis."

The reader thus sees that there has been no lack of research and informa-

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tion concerning the malady, but nothing definite was proven. It is much to be hoped that Dr. Zander is right. If we can once put our finger on the cause of the trouble, the remedy will be more easily secured.

Dysentery, or more properly diarrhea, and the May disease, are quite different in their conditions, although in some cases the latter may have resulted from the former. In dysentery, the bees having been confined to the hive in cold weather on improper food, are unable to retain the fecal matter contained in their bowels, and instead of waiting till a warm day to eject it as usual in the open air on the wing, they discharge it at the entrance, and often even on the inside among the cluster. They soil each other in this manner, crawl out or scatter about the hive, get chilled, and die. It does not matter whether the food consists of too thin or watery honey, or honey containing a large percent of pollen or of honeydew, fruit juices, or even the product of sorghum mills, and perhaps sometimes of watery sugar syrup of low quality. Long confinement and poor food combined often produce this result.

In mild cases where only a portion of the bees suffer, or when the confinement is not of sufficient duration to compel them to discharge themselves in the hive, the bees, after a good flight, may become healthy again. Evidently there are different degrees of the disease. After confinement bees always discharge a certain amount of fecal matter, but out-of-doors and on the wing, and in healthy conditions, this matter is nearly solid, and there is no trace of diarrhea.

It is not only in cold weather and under the above-mentioned conditions that such a disease may cause havoc and ruin. The confinement of a colony to the hive with fresh honey in hot weather, without sufficient ventilation, may produce a similar result within a very few hours. Years ago Mr. Langstroth noticed this fact, which he related in the following words:

"When bees are confined to a close atmosphere, especially if dampness is added to its injurious influences, they are sure to become diseased, and large numbers, if not the whole colony, perish from dysentery. Is it not under circumstances precisely similar that cholera and dysentery prove most fatal to human beings? I examined last summer (1852) the bees of a new swarm which had been suffocated for want of air, and found their bodies distended with a yellow and noisome substance, just as though they had perished from dysentery. A few were still alive, and instead of honey their bodies were filled with this same disgusting fluid; though the bees had not been shut up more than two hours."

Since the above was written by Mr. Langstroth, the same remark has been made by myself and many others.

The May disease is very different from diarrhea or dysentery. It is true that in this malady the abdomen of the bees is distended also with nauseating fecal matter, but it should be called constipation rather than dysentery, for in nearly every instance the bees are unable to discharge this matter from the abdomen. It causes them to drag themselves about in great misery, moving their limbs with difficulty, and for that reason many persons denominate this sickness "paralysis" or "vertigo." In mild countries the disease has so often appeared in spring at the opening

of warm weather that they have denominated it "May disease;" in French, "Mal-de-mai;" in Italian, "Mal-di-maggio," etc.

Sunny Florida, warm Southern California, the province of Ancona, in Italy, on the Adriatic, to the south of Venice (which are all countries with very mild winters), suffer quite often, though irregularly, from the May disease, and the description is everywhere the same—bees crawling about as if in great misery, with more or less distended abdomens, incapacity to evacuate (the reverse of dysentery), their bodies shining because of loss of hairs, and the queen herself sometimes contaminated with the same trouble. The disease has been charged to different causes. In Italy many apiarists strenuously blame its appearance to the blossoms of the hawthorne and other early shrubs (Dubini, *L'Ape*, page 192), but the disease appears in countries where no such blossoms are found.

Can it be that this disease and ordinary diarrhea are chargeable to the same cause, the Nosema? When we remove the cause of ordinary dysentery, it ceases at once, but the May disease is an epidemic, which, although usually of slight importance, sometimes destroys many bees and impoverishes large apiaries. These matters need further investigation before positive assertions may be made concerning them.

Hamilton, Ill.

Can I Make a Living with Bees?

BY J. C. FRANK.

It depends upon the man or woman who is back of the venture, and how much is required for a living. To the person with ordinary intelligence mixed with good, hard common-sense, not afraid to work, and who has the quality of stick-to-it-iveness that is necessary for success in any line of business, there is no question but what a substantial living can be made with bees, and some money be laid up besides. That is, taking into consideration that the family is not of the over-extravagant kind, and can live within a reasonable limit.

There is no business today that produces quicker returns than bees, or a greater percentage of profit for the money invested. Nothing on the face of the earth is so full of business as the busy little bee. She is more industrious and earns more in proportion to her weight than the human being. Give her a fair chance and she will prove to be a savings bank, yielding daily dividends.

The reason there are so many unsuccessful attempts in the bee-business is, that people who have made a failure in life at some other pursuit finally take up bee-keeping. Nothing could be more absurd; one incapable of making a living in other lines is not very likely to succeed with bees. Then, too, many plunge into bee-keeping on too large a scale, without any previous knowledge or experience.

Did you ever know a man who has lived on a farm all his life, made farming a life study, and without any previous knowledge or experience under-

take to practice law or medicine? Or, in fact, any other profession? If you do, you certainly don't know of any one who has made a success of it, do you? One is just as reasonable as the other—it requires just as much experience to manage successfully a large apiary with a profit as it does any other business or profession, yet there are thousands of bright and intelligent men any women who deliberately undertake bee-keeping on too large a scale, without any knowledge or experience, and anticipate quick returns and large profits. These same men would no doubt advise you very fatherly not to undertake manufacturing or any kind of mercantile business unless you had first gained sufficient experience.

To the novice who desires to embark in the bee-business, a brief outline of the surest plan may prove helpful.

First of all, do not plunge. A plunger rarely succeeds unless he has considerable experience. The better way is to handle a few colonies as a side-issue, or work as a helper in a large and practical apiary. Profit by the other fellow's experience. Read, study and observe. Increase your apiary as you gain experience, and success warrants it. By going slowly and carefully while learning, your mistakes will cost you very little.

Location is the foundation of success. A great deal depends upon the locality. Start right, be sure to secure a well sheltered location. This is absolutely necessary.

When conducted along legitimate business lines, and with proper knowledge of the requirements of the business, there is no line any more profitable, in proportion to the amount invested, than that of bee-keeping.

Of course, the first requirement is a knowledge of the business. The second requirement is scarcely less important, and that is, good, energetic stock. Scrubs or hybrids are not profitable in any sense of the word.

Where these requirements are observed there is no industry on a more stable foundation than the bee-business, and there is no industry that is leaping up in popularity faster.

The United States Secretary of Agriculture showed by his last report that the bee-industry amounted to more dollars and cents than any other industry, in proportion.

In all you do, profit by your mistakes, stick to it, and don't become discouraged. A half-hearted individual never won success in any undertaking. Get after it with a determination. A living from bee-keeping is easy enough! Not that alone, but it is the most pleasant and independent business you could engage in. Thousands are making a living from bee-keeping, and paying for nice, comfortable homes. You can be one of them, if you only try.

Dodge City, Kan.

Aids to Swarm Prevention

BY D. M. MACDONALD.

Last month's article reviewed some of the more patent causes for swarming. It may be of interest now to record various means employed for

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checking or preventing the causes tending towards the evolution of the swarming fever. When a doctor has truly diagnosed any particular disease, he likes to discover the root cause for its appearance; and then, not content with simply applying the known remedies to the actual part or organ affected, he also tries to eliminate the germinating influences or conditions without doing which indeed his medicines or curative appliances would have little or no effect in bringing about a permanent restoration to health.

The causes already given supply us with some fundamental reasons for bees swarming, and these may now be grouped into three classes: 1st, Those centering on the queen. 2d, Those relating to the condition of the brood-nest; and 3d, Extraneous circumstances relating chiefly to the hive, locality, and surroundings. Under each of these heads it may elucidate the matter if we consider briefly the means generally employed to prevent the swarming bacillus from taking root and growing. Assuming that when working for extracted honey the bee-keeper has the matter fairly well under control, what will be said relates mainly to those who work for comb honey.

QUEENS.

1. Old queens are an undoubted source of swarming. Young queens, on the contrary, are distinctly averse to taking any steps tending to unsettling the domestic arrangements of the hive interior. Some authorities go so far as to assert that a young home-bred queen will not issue with a swarm during her natal season. If not prepared to go, the whole experience tends to the conclusion that it holds good to a very marked extent.

2. Withdrawing the queen temporarily at the critical period has certainly a deterrent effect. Brood congestion ceases, cells become available for storing, nurses become active foragers at an early date, and the interregnum causes a new set of circumstances to prevail in the brood-nest. Therefore when the queen is restored, the whole force is intent on gathering and storing honey, consequently all desire for a trek has been suppressed, and a sweet feeling of content follows her re-introduction. The Spirit of the Hive, aware of the necessity for strengthening their numbers by mere brood instincts, the workers to clear and polish all cells, will, in advance of her requirements, consign the honey upstairs where the bee-keeper most desires to have it stored.

3. Temporarily caging the queen has at least a moderating influence in retarding preparations for the construction of swarm-cells. It acts on the bees somewhat as did her withdrawal, but may not be so good for herself; and confining her on one or two frames separated from the regular brood area by some open divider might be more effective.

4. Cutting out embryo queen-cells periodically is a distinct check, but it is an upsetting job, and raises so much disturbance, unless where special circumstances aid the operation, that it is

not so extensively practiced as it was at one time. The same may be said of "inversion." In both cases good is mixed with evil.

5. Perhaps clipping the queen's wings is depended upon more than any other "cure," but it has no power to check the instinct.

6. Two or more queens in one hive is a system only yet on its trial. Along this path, however, there is food for thought, and ample scope for experiment.

BROOD.

Closely allied to the question of the queen is that of the brood.

1. A congested condition in the breeding chamber at once generates the swarming impulse, and when it synchronizes with several other prime factors, the fever turns into a mania. A timely withdrawal of one or more frames of sealed brood, and the substitution of a frame or frames of comb or foundation, not only supplies the queen with room for ovipositing, but affords work for the bees eager to build, store or nurse the new batches of larvæ.

2. Spreading the brood, timeously carried out, at least partially carries out the same end frequently, and will be more fully considered in the concluding article.

3. The "Jones plan" is merely named to be rejected as a cruel, gruesome and unnecessary device. Practically the same end can be secured with humane treatment of the brood-nest.

4. The close connection between the appearance of drone-brood in a hive and the inception and construction of embryo queen-cells is very noticeable. Therefore, everything possible should be done to keep the brood-nest all-worker comb. If a few drone-cells are desired, provide them only in the outer frames.

5. Doubling the brood-frame capacity by placing a second body above or below the first, and giving the queen the whole range of, say, 20 frames, is one of the best aids to swarm prevention. But queen and bees have here ample scope for their energies. Double early in the season, and contract later.

6. What is known as the "Simmins method" is credited with a power to check swarming. Using a long combination hive some half-dozen frames in front are fitted with starters only, and this space is never allowed to have its combs completed, nearly full frames being regularly withdrawn and others substituted. The theory here is that bees never kept the swarming instinct with this empty space in front of the brood-nest.

7. What is known as a non-swarming chamber, simply a shallow-frame body, is placed below the regular brood-frames, and as fast as bees build out the combs, the case is raised above and replaced by another set of frames. Theoretically, both these systems should work efficiently, but practical difficulties arise, while at best they cause hard labor.

HIVE, ETC.

The third set of circumstances and mode of procedure hinge around the hive, its surroundings and location. Heat being one of the chief factors causing swarming, any moderating influence must aid in checking the desire.

1. Shade is one of the main requisites. With a very high temperature, no cooling breath of air about, and a broiling sun beating in full force on the bees' domicile, conditions are bound to be very irksome to the inmates. Therefore, every known mode of shading and cooling the hive should be tried.

2. Ventilation of the brood-body is essential in such circumstances. Wedge up not only the hive front, but the whole fabric, so that a current of air can play all under the overheated bees and combs. The fanners can then drive out the foul air and introduce a supply pure and fresh, not only at the entrance, but all around from front to rear.

3. Ventilating supers is no less a necessity in periods of very excessive heat. If the roof is tilted aside, and the coverings eased up, the bees find immediate relief, and their toil is carried on in a way which makes life more worth living. Further, better and more efficient work can be overtaken.

4. Ample room in the supers hinders congestion above and below, affords timely employment for lately hatched bees, hitherto hindrances and not helps, and secures a more bearable temperature. A "cooler" case given above the other supers sometimes in advance of the bees' requirements, is looked on in this locality as one of the best aids to prevention.

5. "Shook" swarming fairly "takes the bull by the horns," and, at least sometimes, puts an end to the desire to seek strange fields and pastures new, but it has not "caught on" much over here.

6. Somewhat akin to this drastic treatment was a mode of procedure frequently practiced by our forefathers. They, instead of going through the process of shaking, simply changed hives. They carried the "boiling over" colony to the stand of a weak one, and replaced it by the weakling; thus almost in an instant, as they fondly hoped, checking swarming and equalizing forces so that both would be fit for surplus gathering.

7. Several swarm catchers are on the market fairly efficient in their action, but their cost, the hindrance the excluder-zinc proves to the busy toilers, and the trouble they sometimes entail, rather rule them out of court for the extensive bee-keeper.

8. Never, if possible, use excluder-zinc over frames when working for comb honey. If they are not in the full sense honey-excluders, they are swarm generators. Anything checking free intercourse must impede progress, and undoubtedly by hindering upward ventilation they help to bring about the swarming fever.

Banff, Scotland.

"Why Are These Things So?"

BY F. DUNDAS TODD.

Mr. Doolittle asks an important question, on page 16, but doubtless the editor is sorry he ever allowed it to go into print, for the odious word "socialist" occurs in the article at least two times, and everyone of the readers marching under the banner qualified by that word will

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feel he has been specially invited to make an answer. Furthermore, the socialist is sure he is the only one competent to answer correctly.

Firstly, let me say that Mr. Doolittle does not know very much, if anything about socialists and socialism, for if he did he would not assert that socialist papers are blaming the tariff for higher prices of lumber and other commodities. They know better.

To understand the reason of the comparatively swift advance in the prices of most commodities, not only in this country, but the world over, one must know a little about the principles of political economy. The socialist movement is based on economic principles emanated by Karl Marx, and I will endeavor to set forth briefly a few of his tenets, and then make special application of them to the problem in hand, which is this: When practically all other commodities are rapidly advancing in price, why does the bee-keeper get for his product (honey), the price that held good 23 years ago?

According to Marx, the real value of a commodity is the average social labor necessary to produce it. Production is no longer an individual affair, it is a social matter. To produce a section of honey, for instance, Mr. Doolittle's labor is concerned with only one part—the filling of the sections and preparing them for the jobber; but others assisted him by making the section-frames and the wax-foundation. Behind them is an army of others providing the raw material, from the cruiser who located the timber up to the man who sawed the wood into thin strips. Modern production begins with the discovery of the raw material, and ends by placing the goods in the hands of the consumer. This accounts for the expression, "social labor necessary," in the definition.

Mr. Doolittle says that he occasionally exchanges honey for butter, that is, he trades the product of his labor directly for that of the farmer, or, stripped to its elements, he exchanges labor for labor. Sometimes he sells for money, that is, gold, which is also the product of labor. Economic law says that in the transaction there must, on the average, be an even exchange of labor value, of the necessary labor to produce the honey and the gold remain constant, prices will remain stationary, but if one of them require more or less, then more or less of the other must be given in exchange.

For instance, suppose it takes as much labor to produce 130 sections of honey as it does to produce one ounce of gold, then they are of equal value. But if by improved methods 200 sections can be produced by the same amount of labor, while it takes as much labor as before to produce the ounce of gold, then Mr. Doolittle will have to give his 200 sections for the ounce of the precious metal. The price of section honey we say has fallen. Conversely, if the ounce of gold is got with less labor than formerly, but there is no change in the labor necessary to produce the sections, then more than an ounce of gold must be given for the 130 sections, or, if we want to give only the even ounce of gold, then we must be content with the fewer sections.

The price of honey is supposed to have gone up, but as a matter of fact, the price of gold has gone down, as expressed in terms of honey.

Of course, all kinds of variations may and do occur. It is possible, for instance, for improved methods of production to keep equal step with both section honey and gold, in which case the exchange will be constant, and we say there is no variation in prices.

During the past 15 years the price of most commodities have simply soared, and are about 50 percent above what they were in 1895. What is the cause? The undoubtedly correct answer is, depreciation of gold, due to improved methods of mining the ore and securing the metal. So improved are the processes that in the past 25 years the world's output of gold is equal to that of the previous century and a half. Therefore to buy an article that cost an ounce of gold 15 years ago, we must give an ounce and a half. In common speech, prices have gone up 50 percent, and, so far as I can judge, the end of the upward flight is not yet.

So much for the general principle. But to answer Mr. Doolittle's specified instance requires another application of the same theory. He is a part producer of a section of honey, though doubtless he thought he was doing it all; but production is not complete until the section is in the hands of the consumer. Production essentially consists in moving—moving the article from where it is not wanted to where it is wanted. His part is to move the section-frame several times; to move foundation about as often; to move the combined result into the hive, then out, then into the shipping-case; next to the depot. Many others move the honey along to the consumers, and when it reaches him, movement ceases, and production is finished. Ordinarily the consumer pays full value—no more, no less—for the labor stored up in the section. There is very little robbing at the point of consumption—exploitation takes place in the field of production. Mr. Doolittle's section is being sold to the consumer at its real value, just as he gets full value when he buys. But, like all other workers, he is undoubtedly being exploited as a producer. It is not a fair deal for him, therefore, to compare the retail price he pays, with the wholesale price he gets. Let him compare retail prices with retail, and wholesale with wholesale.

The extent to which a producer or worker is exploited depends upon the kind of industry he is in. Broadly speaking, in the agricultural field the worker gets about 50 percent of what he produces; but the percentage is steadily decreasing as methods are improved. In the industrial world the worker gets about 16 percent; not so many years ago he got 25 percent. The iron law is that the worker gets, no matter in what country, just enough to sustain him in the standard of living peculiar to the region in which he lives. A bee-keeper is essentially a worker, with a modest capital invested, therefore he gets skilled workers' wages, plus the percentage of his capital necessary to replace the annual losses due to the deterioration of his hives and appliances. Improved

methods enable him to produce by his own unaided labor more honey than he could produce 23 years ago, hence the price, as compared with many other commodities, has gone down; but Mr. Doolittle is doubtless enjoying about the same kind of a living he got a score of years ago.

It is utterly impossible in a short article to cover all the ground that ought to be gone into to make the proposition clear, so I have tried to keep close to essentials. In closing, I would ask that Mr. Doolittle will kindly note that even if I am a socialist, I have not said a word about the tariff, and I would humbly suggest that before he imputes statements to socialists he ought to investigate a little, and learn from their literature, what they actually do say.

One thing I am grateful for: Mr. Doolittle did not trot out the law of supply and demand, which has found its grave, due to overwork. For a long time it was deemed the steam of the economic engine, but Karl Marx proved it to be merely a regulator. The few who still believe it to be the driving force will have a hard job to explain why prices went steadily up during the period of depression that is said to be now happily past.

Victoria, B. C.

***** "Bee-Keepers' Guide"

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Dr. Miller's Question-Box

Send Questions either to the office of the American Bee Journal or direct to
DR. C. C. MILLER, MARENGO, ILL.
He does NOT answer bee-keeping questions by mail.

Large Queens vs. Small Ones—Pickled Brood

1. I have a young golden queen, the yellowest and the largest I think I have ever seen, but she has not filled her hive nearly so well as some queens I have. Is it always the case that large queens are prolific, or will she be likely to do better next year? She has been laying only about a month.

2. Do you think pickled brood is contagious? It is so near like black brood that I had to send some samples to Dr. Phillips to find out the difference. But I can rear queens and drones in the colony that has had it.

ARKANSAS.

ANSWERS.—1. She may do better next year, but not likely. One of the smallest queens I ever had was, I think, the most prolific. But that was an exception. A queen of average size is perhaps usually the best.

2. Pickled brood is not considered contagious.

Honey-Dew Granulated in the Comb

My bees have stored a quantity of honeydew that has granulated as fast as it was stored. I run for extracted honey, and my store-combs are full of it. I want to get my bees to consume it, and rear brood from it all they can during August for workers for the honey-flow in October. Can I excite the bees every day and get them to consume some of it daily? My bees stored a lot of it some 20 years ago, before I had so many colonies. I then soaked the combs, extracted, and barreled it for vinegar. But it didn't pay for the trouble. I now have 150 colonies with store-combs on, and it would be a laborious job to get them emptied that way.

SOUTH CAROLINA.

ANSWER.—I'm not sure that you can do very much toward getting the bees to consume any more of the honeydew for brood-rearing in August than they will do of their own accord, unless it should happen that at that time there is a dearth, or partial dearth of forage, in which case you can extract the honeydew and feed it daily. But if you keep it in the combs you will probably find that you can get a good many of such combs used for brood-rearing next spring. Possibly some of the large dealers might buy it for mechanical purposes.

Bees Killing Each Other

I have a colony of bees that have been killing each other for the last 6 weeks. I can not account for the cause unless it is rats.

PENNSYLVANIA.

ANSWER.—With no particulars in the case one can only guess. If it is drones they are killing, that may be because of the dry weather causing a dearth of pasturage. If they are killing workers, it is possible that the larvae of the bee-moth are so injuring the young workers in their cells that their older sisters drag them out. It is also possible that it is a case of bee-paralysis, and the healthy bees are dragging out the sick ones. If that is the case, the sick bees will look black and shiny, and will make a tremulous motion with their wings. As far north as you are, paralysis is not a serious matter, and disappears of itself.

Queen that Seemed to Faint

Has any one ever heard of a queen's fainting? Last week I received a fine queen, and after the bees had accepted her I concluded to clip her wings. The clipping was done with the gentlest of treatment, but to my sorrow she dropped from my fingers—75 cents apparently gone, because I was sure she was dead. Instead of throwing her away, I placed her on top of a brood-frame with feet sticking straight up, where the bees gathered around her and began a sort of a massaging. I supposed at the time that they were attempting to eject her dead body.

The bees worked with her until they shoved her off the top of the frame and she fell to the bottom of the hive. Tiring of watching at the entrance for them to bring

out her dead body, I lifted out a frame in order to see what had become of her. There she was lying on her back, but her abdomen was faintly beginning to throb. The throbs became greater and greater (while my heart beat a rat-a-tat-tat) until finally the "little lady of the hive" was placed upon her feet by the bees around her. She then went through motions with her whole body, much like a dog vomiting. I concluded that it was the dying act. After a few minutes, however, she crawled down on to the comb and went about her duties of inspection. She seems to have suffered no ill effects from her swoon.

MISSOURI.

ANSWER.—Yes, such cases have been reported a number of times.

Bees in a Gopher Hole

I have a swarm of bees in a gopher hole, which goes directly under and among the roots of a large poplar tree. I would not like to destroy the tree on account of its shade. How may the bees be removed to a stand?

IDAHO.

ANSWER.—Perhaps you can drive them out with smoke or gasoline, having a frame of brood outside for them to cluster on. Or you might arrange a bee-escape that would allow the bees to come out but not to go back in again. They would then settle in a hive outside, the hive having a frame of brood to hold them. Of course the queen would not be with them, and so you would have to furnish her a queen. Possibly you might dig away enough earth without injuring the tree, so that you could get out combs and all.

Vegetables in Bee-Cellar—Drones and Queenless Colony—Large vs. Small Hive

1. Do vegetables in cellars have any effect on wintering bees in same?

2. The directions of Kretschmer's swarm-guard say to trap drones and dispose of them by drowning, and if a queenless colony shake them out near the entrance. What effect will the drones have on a queenless colony?

3. What effect has a large hive over a small one, if any?

MINNESOTA.

ANSWERS.—1. Not if everything is kept clean and sweet as it should be. If rotten stuff is allowed to accumulate, it is bad for the bees as well as for the people that live over the cellar.

2. I don't know of any effect except to eat up victuals.

3. Not sure I know just what you mean; but a large hive put over a small one has no special effect except that it would be a bad fit, and you would have to close up any opening between the two.

A Beginner's Questions

1. I don't know anything about bees, but I have 7 colonies. Are queen-cells all at the end or at the bottom of the combs?

2. I have one colony of bees which is a small bunch; they don't make comb very fast, and store but little honey. The cells that have no eggs in them have young bees. I thought they were queenless. What is the matter with them? Don't they do anything?

PENNSYLVANIA.

ANSWERS.—1. Bees generally build queen-cells along the lower edges of the combs. But if there is a hole, or some irregularity of surface in a comb, thus making room for a queen-cell, the bees do not despise the opportunity. In rare cases they will even build a cell separate from the comb on one of the bars of a frame. If a colony becomes suddenly queenless, they build cells over young worker-larvae, converting them into young queens, and these cells are often built right in the center of a brood-comb where there is no hole or irregularity of surface.

5. Without knowing more about the case, it is not easy to say what is the trouble. Very likely, however, the colony has a poor queen, producing bees that are too weak or too lazy to work. The remedy in such a case is to give them a queen of better stock.

Swarming Out—From Egg to Bee—Queen-Cells

1. July 10th I had 2 swarms to come out and settle together. I hived them in an 8-frame dovetailed hive with one super on and a queen-excluder between. July 27th they swarmed out and left. The hive was full of honey and comb. Why did they leave?

2. After the above swarms left there were several bees that came back to the hive. I suppose they were out when the others left. Do you suppose they could rear a queen, or would I have to introduce one?

3. How long is it from an egg to a bee? I mean how long after the egg is laid till it is a full-grown bee?

4. Are queen-cells always built before the eggs are laid, or do the bees build the cells over the eggs?

TENNESSEE.

ANSWERS.—1. I am sorry to say I don't know. It was certainly a very unusual occurrence. The thing that makes it hard to make a guess is their staying in the hive 8 days before absconding. If the super given to them had been on the hive some time before swarming, there is a possibility that there was brood in it and one or more queen-cells, which might induce swarming; but even in that case one would not expect such wholesale desertion.

2. If there was young brood in the hive the bees might rear a queen.

3. For a queen, 15 or 16 days; for a worker, 21 days; for a drone, 24 days.

4. When bees contemplate swarming or superseding, the cell is first built, or at least the cup, and the egg placed in it; but if the queen is by any means lost when no queen-cells are already occupied in the hive, then the bees build a queen-cell over a young larva.

You are standing in your own light to try to get along without a bee-book. The reading of one might save several times its cost in one season.

Queens and Queen-Mating

1. How long after a queen-cell is capped does the virgin hatch?

2. Would a colony be likely to swarm if a queen-cell nearly ready to hatch was introduced and accepted?

3. I have a colony of very cross bees, but fine honey-gatherers; they have a decided bands. What kind are they? Would the mating of a queen of mild temperament with a drone of a cross colony, but good honey-gatherers, likely prove successful?

4. How does a queen-breeder mate a queen?

NEBRASKA.

ANSWERS.—1. Cowan says the grub hatches from the egg in 3 days, is fed 5 days before it is capped, and in 7 days after being capped the young queen emerges from her cell. I think, however, that the time of sealing varies somewhat, as I have opened sealed cells which contained rather small larvae.

2. I think it might; indeed, I remember seeing it advised, many years ago, to put a sealed cell in a hive to induce the colony to swarm.

3. I don't know; it might be successful and it might not.

4. Just the same as you do; let the young queens fly out at their own sweet will. But if he is up to his business, he will do everything possible to allow only desirable drones to fly in his neighborhood. Some remove their young queens to isolated locations where only the right drones are to be found.

Bees Carrying Pollen—Forming Nuclei

1. How long will bees carry pollen after the death or removal of their queen?

2. In forming a nucleus, is it best to remove the queen from the old hive to the new location of the nucleus, or let the nucleus rear its own queen? Bee-keepers seem to differ on this question.

3. In forming a nucleus in a 10-frame Langstroth hive, by using 3 to 4 frames of brood and honey, would you fill the balance of the nucleus hive with frames with full sheets at once, or say give 4 or 5 at transfer, and balance when these are filled?

MISSOURI.

ANSWERS.—1. I don't know, but for a considerable time, as you will find the combs of a queenless colony usually pretty well filled with pollen.

2. In no case is it advisable to let a nucleus rear its own queen. Nothing less than a full colony is good enough for such important business as rearing a queen. After a queen has emerged from its cell, or when the cell is ripe enough for the queen to be within a day or two of emerging, then it may do well enough to use a nucleus. As to the matter

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of moving the queen to a new location, you will find that the bees will stay better on the new location if the queen is with them. But bees that have been queenless a day or more will stay in a new location better than bees taken directly from a laying queen. One good way to form a nucleus is to put a colony, or part of a colony, with its queen, on the new location, and then after 2 or 3 days to take away the queen with all the brood and bees except enough to make the nucleus.

3. Doesn't make any material difference; just as well to give additional frames only as needed.

Getting a Patent—Best Comb-Honey Hive

1. What is the best way to get a super for grooved sections patented?
2. Which hive is considered the best for comb honey, the Langstroth or the Danzenbaker?

I have taken the American Bee Journal one month and consider it grand.

NEW JERSEY.

ANSWERS.—I. I think a patent lawyer is always employed to secure a patent. He makes it a special business.

2. Some prefer one and some the other. Probably the great majority have the Langstroth in the popular form of the dovetailed hive.

Progeny of Purely Mated Queen

1. Will a purely mated Italian queen ever produce both black and red drones?

2. I have some Italian queens that I bought as pure stock, and a small percent of their workers show real black on the extreme tip end of the body. Is this a sign of impure blood?

3. Last year I bought some queens and reared them and Italianized my yard of 20 colonies, and some of them show all red drones, and some both red and black. I understand from studying "A B C of Bee Culture," that the daughter of a pure Italian mother will always produce pure drones, even should she mate with a black drone. Please straighten me out on this.

MISSOURI.

ANSWERS.—I. I think she may. The workers are quite constant in their markings, but queens and drones vary considerably.

2. Black on the tip end is no sign of impure blood. If a shiny black, it is a sign that the plumage has been rubbed off.

3. The drone eggs are not fertilized, as are the eggs that produce queens and workers, so the mating of the queen has no effect on her drone progeny. Consequently if a virgin of pure Italian blood meets a pure black drone, although her worker progeny will be mixed, her drone progeny will be the same as if she had mated with a pure Italian drone. That, however, has nothing to do with the fact that there is no little variation in drones of pure blood.

Sections Under Brood-Frames—Comb or Extracted Honey?—Preventing Swarming—Making Increase

1. Do you ever have bees start sections underneath the brood-frames; that is, the super on the first floor, then the hive on top?

2. Are there any serious objections to this?

3. Which is the best to produce, comb honey or extracted?

4. How do you prevent swarming?

5. I have about 100 colonies now. How many have you?

6. I live in the blue-grass section of Kentucky. White clover is very abundant this year. My bees have swarmed so much I will not get as much honey as I would otherwise. I had the surplus combs and hives for them, so wanted some increase. What do you consider the best method of increase?

7. What section do you prefer, the bee-way or plain?

KENTUCKY.

ANSWERS.—I. No. But some very good beekeepers practice it.

2. I don't know that there are serious objections except the labor involved, provided the sections are moved above before there is any sealing done.

3. I don't know which is best for you. Indeed, I'm not any too positive that I know which is best for me. I produce section honey entirely; but if I were to spend a few years extracting I might think that better. But what is best for one is not always best for another.

4. I don't always prevent it. Among the things that I think may have some influence in preventing swarming are: Keeping the hives shaded; giving abundant ventilation

at the bottom of the hive with opening at the back end on top, so that there is ventilation through the brood-chamber; keeping out all drone-comb; giving abundant super-room in advance of the needs of the bees; and keeping vigorous young queens. Yet some old queens are less inclined to swarm than some young ones. Cutting out queen-cells sometimes prevents swarming; sometimes not. Breeding from queens whose colonies do not swarm is advisable.

5. 100.

6. The best method of increase depends largely upon the man, and somewhat on conditions. For some, natural swarming is best. For some, artificial increase. Among the different kinds of artificial increase there are so many that space would fail to name them all here. Perhaps there is no place where fuller information on the subject may be found than in "Forty Years Among the Bees."

7. The bee-way.

Position of Laying Queen and Division-Board

1. I have an observation hive. The bees were put into this hive about June 1st, and I have been looking closely for the queen but have never seen her. Is she covered by the workers while laying? They have brood and honey sealed.

2. I have the 8-frame dovetailed hives. I did not know where to place the division-board until I had read the last American Bee Journal. I placed the division-board in the middle of the hive instead of at the side. Do you advise me to open the hives and change them? What harm do they do when placed in the middle of the hive?

ILLINOIS.

ANSWERS.—I. No, she is not covered when laying; but she may be hidden under a mass of bees when not laying. It is a little strange that you have not seen her; but if eggs are present she must be there, and if you persevere you will probably see her.

2. Early in the season, while the weather is cool, the brood-nest should be as compact as possible to preserve the heat, but at the present time a dummy in the center of the hive will do no harm. It's a dummy rather than a division-board, having space all around it so the queen can easily pass from one side to the other.

Bees Not Doing Well—Why?

I have a few colonies of bees, but they are not doing as well this year as last. They stood the winter all right, and were strong enough up to April 25. We had 3 big killing frosts here, and from that day to this they have not done so well. What is the cause of it? I have just looked at them and the queens don't seem to lay as many eggs now as they did in March and up to April 25. What is the cause of that? I have been handling the common black bee for 10 years, and this year they are not doing anything. I have 7 colonies of bees of the golden 5-band Italian, and 7 of the blacks. They are all just about the same.

ARKANSAS.

ANSWER.—The remarkable season is enough to account for the trouble. You will likely never have another like it. The very warm spell early set the bees forward and they were in April much as they usually are in June. Then came that terribly cold and backward spell that set them way back, and having a lot of brood on hand they used up stores rapidly. If you had looked closely you would very likely have found that they were entirely out of stores, all brood-rearing stopped, and perhaps all the unsealed brood dragged out. That would leave them too weak now to do their work. Very likely they ought to have been fed.

Uniting Colonies—Bees Working Intermittently—Self-Requeening of Colony—Facing Nives

1. Is it possible, and if so, how would you unite 2 or more colonies? I mean, take 2 small second swarms and kill the queen of one colony before uniting?

2. One of my colonies stopped working while others were very busy. They quit for about 3 or 4 days, and then started to work again, but are not as busy as the others. They seem to be strongest. They stopped working about one week after the swarm issued. What do you think was wrong? Can I do anything to get them busy again?

3. In case a queen dies by accident, will the colony requeen of its own accord; that is, if it has brood?

4. In last month's American Bee Journal,

I see there is a question asked by me about having the bee-hives "face to face," which should be "face east." Do you think facing east is just as good as facing north?

IOWA.

ANSWERS.—I. At a time when bees are gathering there is little trouble in uniting almost any way. Merely putting the 2 together is generally all that is needed. When nothing is coming in there is more trouble. One way is to alternate the frames, putting into an empty hive first a frame of brood and bees from one hive and then from the other, and so on. Another way is to shake on the ground in front of one of the hives all the bees from both colonies, letting them get mixed up together, and then giving them the combs from both. One of the best ways is to put one hive directly over the other, with 2 thicknesses of common newspaper between them. By the time the bees gnaw the paper enough to get together they will unite peaceably. If a little hole is broken through at one spot it will hurry matters a little, but the hole must be merely a break, but not open so a bee can walk through. If there is any choice of queens, kill the poorer; if not, the bees will attend to the business themselves.

2. If they stopped working for a few days after sending off a swarm, that was nothing unusual, especially if a very large force went with the swarm, leaving very few field-bees in the mother colony.

3. Yes, when the bees lose their queen they will rear another, provided there is present brood not more than 3 days old.

4. There probably is not much difference. A good many think it is better to face east than north.

Rattlesnake and Ground-Squirrels

1. Yesterday (July 9), at our apiary, a loud humming sound was heard, and on investigating it was found that a swarm was forming on a small shrub. For a while it grew in size and then dissolved into a whirling storm of bees and returned to their old location. And, as we were watching, a large rattlesnake went gliding along and into one of the empty hives, evidently through a small entrance, where he was dispatched. Might the snake have caused the swarming, or irritated the bees?

2. We noticed lately that ground-squirrels spend much of their time among the hives, and seem to eat something in their cautious way from the ground. Is it likely that they eat incoming bees for the sweets?

CALIFORNIA.

ANSWERS.—I. It is doubtful that the snake caused the bees to leave the hive. It sometimes happens that bees swarm and then return to their hive because for some reason the queen does not accompany them, and the case you mention may have been one of this kind. Certainly the entrance of the snake into another hive did not cause swarming, as you say the snake was dispatched.

2. I have never heard of ground-squirrels catching returning bees, and it is more likely that if a squirrel picks up anything from the ground in front of a hive it is dead bees or larvae thrown out from the hive.

A Beginner's Questions

1. I just purchased (July 2) one colony of bees (5-banded Italians, I think) of a man who doesn't know much about bees, and is afraid to go near them. He thinks bees will fill the hive first before they will the super, so he put the super on as soon as they swarmed. The super is nearly full of honey now, but none in the hive. Would you let the bees finish filling the super, or take it off now?

2. Is it advantageous to feed any sugar now? Do they eat it and not so much honey, or do they store it or make honey of it?

3. How can I tell a queen-cell from any other cell?

4. If I destroy the queen-cell will it prevent swarming?

5. If I buy a new queen of some other variety and put it in a strong colony, will they swarm with the new queen? If not, what will they do?

6. Will the colony with the new queen soon become entirely the same kind that she is?

7. Is crimson clover a good bee-plant?

8. Where can I get sweet (yellow and white) clover seed? When should it be sown?

9. I have just subscribed for the American Bee Journal and ordered 2 bee-books, so I expect I won't have to ask questions here after.

NEW JERSEY.

American Bee Journal

ANSWERS.—1. So long as the flow continues it is better to leave the super on till it is filled, as a rule. I'm a little afraid that the queen went up into the super, and that it is filled with brood. In that case all you can do is to leave the super on till all the brood hatches out. When it gets full enough the queen will be forced below for want of room, and when you find the queen below you can put an excluder on the hive to keep her below. Perhaps it may be better to find her in the super and to put her down in the hive below the excluder. If the super is one filled with extracting frames, then you should put the frames in the lower story, provided they are of the same size as the ones in the lower story.

2. Honey should never be fed to bees at any time when they are storing in supers. By so doing you are running against the pure-food law.

3. You will have no trouble in telling a queen-cell when you see one. Queen-cells are utterly unlike other cells, being so much larger. In its first stages a queen-cell looks something like an acorn-cup, and when it is full size it looks a good deal like a peanut. When you get your books you will probably find a picture of one.

4. I think you may have an idea that there is just one queen-cell in a hive. You may look through the hive and find none. Or you may find a number of the little cups almost any time of year. But when the bees take a notion to swarm a number of cells will be started. Cutting these out will usually delay swarming for a little, and sometimes it will stop it altogether, and sometimes it seems to make little difference.

5. That depends. If you merely put in a strange queen without any ceremony, the bees will at once proceed to ball her, and she will soon be a dead queen. They will not be induced to swarm by having a new queen put in. If you remove the old queen and follow the instructions for introducing that always goes with a queen sent by mail, she will merely take the place of the queen that was removed.

6. In perhaps 10 weeks the bees in the hive will all be the progeny of the new queen, and will be the same as if she had always been in the hive.

7. Yes.

8. You will probably find it advertised in the bee-papers. It may be sown in spring or fall.

9. You are wiser than the average. There are so many that think they can get along without a bee-book, and they lose big money by it. But you are likely to be mistaken in thinking you will have no question to ask. None of us ever reach that stage, and the questions of those who have carefully studied their books, as you will, are always welcomed in this department, even if they can only be answered by saying, "I don't know."

Manipulations to Prevent Swarming

I am a bee-keeper in a small way—12 to 15 colonies—in Louisa Co., Va., working for comb honey, and for several years past have tried each year a different method of preventing swarming, mostly of my own invention, with failure each year.

My case is somewhat complicated by the fact that I can not visit the place where my bees are kept except at irregular intervals more than a month apart, and the man I employ, while faithful, is even less expert than myself. The locality has an excellent fall flow, of which I take none, and I have not so far lost a colony in the winter or spring. I think this has the disadvantage of sure swarming. Moreover, from fruit-bloom on there is usually a small flow until the middle of July, not very strong at any time, a condition which I believe conduces to swarming. I am using now 2 stories of Danzenbaker hives per colony, and thinking of trying the following method next spring:

As soon as it is warm, before preparations for swarming, interchange the stories, putting the upper story below. Put a queen-excluder between, and make sure the queen is in the upper story. Put on a super also, as my bees often begin storing in supers long before white clover blooms.

In 12 to 14 days examine the upper story, cut out any queen-cells, and shift the stories, keeping the queen in the upper story. Repeat the shift at intervals of 12 to 14 days.

The question puzzling me is this: After a shift, is there danger that the contrary things will start queen-cells in the lower story? If there is much likelihood of queen-cells started in the lower stories they would have to be cut out, say a week after a shift, which would double the work. I am not expecting a sure thing, but would be perfectly

contented with reducing my swarms to 20 or even 25 percent. If I could be reasonably certain that all queen-cells would be started in the upper story, I would take the chance of missing one now and then.

I hope that you will solve my perplexity as to the locations of queen-cells started under the circumstances explained. VIRGINIA.

ANSWER.—Yes, there is always danger that queen-cells will be started anywhere where there is brood from which the queen is excluded, provided, there is present the proper material to start cells on. Possibly there is more likelihood of it with the queen above the excluder than with her below. At any rate, I don't believe you will like keeping the queen above. It is going square against the instincts and habits of the bees. Possibly your idea is that by fastening the queen above the excluder she can not issue with the swarm. But the bees will swarm all the same, even if the queen can not get out, and after a little while there will be a dead queen and a virgin queen. Yet with your shifting the stories every 12 or 14 days there may be no swarming.

I wonder if you have fully tried putting the brood above the excluder and leaving the queen below. That is the Demaree plan, and with some it succeeds in having no swarming with merely the one shift. If you haven't tried it, it is certainly worth the trial. I am not sure that G. W. Demaree paid any attention to cells above the excluder. He merely put all brood above the excluder, leaving the queen below, when the upper story became an extracting story, and there was no swarming.

Bees Hanging Out—Bee-House for Cold Weather

1. Why do bees hang out? I have 36 colonies of bees, and some of them hang out so badly—don't swarm, and don't seem to work. I introduced new Italian queens, but it did not seem to help. I have put 2 supers on each hive.

2. Does it pay to put bees in a bee-house in cold weather? INDIANA.

ANSWERS.—1. The likelihood is that your bees are hanging out for the same reason that mine are—nothing for them to do. About July 10th the drouth cut the clover harvest square off, and up to the present writing (Aug. 3) bees are hardly getting anything. The weather being hot it is more comfortable outside than in the hive, so one can not blame them for hanging out.

2. It pays to give them some kind of protection, either by packing or putting into the cellar; but very few think it well to have them in a house above ground in winter.

Requeening Every Year—Superseding Queens

1. I am impressed with the utility of young queens that are a year old, and I have an idea it will pay to requeen every year. Would there be any objection to this way? Mr. Doolittle, in "Scientific Queen-Rearing," Chapter XXIII, "Rearing a Few Queens," says, "Tier up a hive as for extracting, using a queen-excluder, having a frame of unsealed brood in the upper hive with other combs; in 4 or 5 days you will have one or more cells started; you can use these for royal jelly for your wax-cups." But now is where my question comes in: Why not let this cell mature, say there is only one?

Why not proceed as he directs on the opposite page? He says if you desire to supersede a queen, all you have to do is to put on an upper story, with a queen-excluding honey-board between it and the hive; place a frame of brood with a queen-cell upon it in this upper story, and after the young queen has hatched withdraw the queen-excluder, and your old queen is superseded without your having to find her, or having the least bit of time wasted to the colony.

2. Would it be just as good to look up the old queen, say some time in August, after the flow is over, and pull her head, and let the bees make a new one? Are there objections to either of these plans? If so, what are they? Of course one would not get any new blood in this way unless he got the frame of brood as described in the first plan, from the hive containing the best queen, to put in this upper story to get the cell from. One could get only a few frames of brood from his favorite, or he would weaken them too much, unless just a small portion of brood could be taken and fastened in a section, and this secured in a frame and placed in the upper story. I saw that done once. An old and experienced bee-keeper

showed it to me. He had a colony working nicely in the super; the queen got crippled in some way, and he discovered that the colony was hopelessly queenless. He took a piece of brood from another hive (no brood in their hive) and secured it in a section, took out one of the center sections in the super and placed this section containing the small piece of brood in its place, and in due time they had 7 nice cells on this small piece of brood. Of course, he did not use a queen-excluder, as the bees had no queen below.

Now I will ask right here, would not this be a good way to supersede all queens that you wish to supersede, even while they are at work in the supers? Of course, it would stop brood-rearing for a while, for 20 to 30 days right in the flow, which would probably be too serious a matter. I prefer the first plan, as one doesn't have to look up the queen and murder her. That is left to the virgin. Mr. Doolittle says she will not always attend to it. It seems to me that this first way would be the cheapest and easiest way of all, and any one could do it to perfection, even a beginner like myself.

VIRGINIA.

ANSWERS.—1. Your scheme may work all right, and it may not. I think you will find that when Mr. Doolittle is talking about superseding by putting a sealed cell in an upper story, he is talking about superseding a queen that is not young and vigorous. With a vigorous 2-year old queen present, you might find the would-be usurper ousted. Also, you may find that in some cases no cells will be started over an excluder. The chances will be better with an old or failing queen in the lower story. Also, you will be more sure of having cells started above the excluder if the brood is a considerable distance above the lower story, say in a third or fourth story.

2. Killing the old queen and letting the bees rear a successor will probably work all right, only if there should be a fall flow about that time there would be some danger of a swarm issuing with the first young queen that emerges.

You speak of weakening your best colony by drawing brood from it too often. You can draw from it every frame of brood once a week, and have it grow stronger instead of weaker. Each time you draw a frame of brood, put in its place a frame of brood from some other colony, and if the brood you give your best colony be more mature than that which you take away, the process will be strengthening and not weakening.

Bee-Moth—Producing Comb and Extracted Honey

1. In looking in one of my colonies one day I saw some worms about 1/2 inch long, and some of the cappings were eaten off the brood. What are the worms? Do they eat off the cappings?

2. What is a good way to get rid of them?

One night when looking at a hive we saw a toad sitting on a box, and when the bees came out he would grab them and gobble them up.

3. We produce comb honey. Do you think it would be better to produce comb and extracted? NEW YORK.

ANSWERS.—1. It was the larvæ of the bee-moth (often called wax-worms) that you saw, and they no doubt have eaten off the cappings.

2. The best remedy, or rather preventive, is to have strong colonies. Italians are better than blacks about cleaning out the worms, and it is possible that your bees would be much improved as to fighting the moth, as well as in other respects, if you would get one or more queens of Italian stock to breed from.

3. Hard to say without knowing all the circumstances. It depends a good deal on your market. In some places extracted honey is little wanted, and in others it will sell for nearly as much as comb honey.



Bee-Keeping in Cuba

I am up in the mountains about 30 miles northeast of Trinidad, in one of the finest

American Bee Journal

valleys on the island. It is high above sea-level, with no insects, plenty of fine air and water, and as healthy a locality as anywhere on earth.

We have 250 colonies of bees in American hives that we bought in Cuban logs and transferred to the hives. We expect to increase to 1000 colonies by Oct. 1st.

We have fine weather here in summer—not too hot—and the nights are always cool. Our winters are simply grand—they are dry; from May to October we have rains. However, it is not "Old America," and we sometimes long to see the States, and also Old Glory unfurled to the breezes in our own nativity.

Best wishes for the grand "old reliable" American Bee Journal! H. H. ARNOLD.
Trinidad, Cuba, July 4.

Drouth Cut White Clover Short

I am working mostly for comb honey, using the 8-frame Hoffman-Root chaff-hive. I crowd the bees all I can, carrying 2 and 3 supers on each hive, and taking away sections as fast as I can find any that are capped.

We usually have considerable cool weather here until July 1st. The bees are working well on basswood now. The raspberries were a failure. White clover was quite good for a while, but we had a drouth that cut it short. We have had some good rains lately which have freshened up the flowers. Wolverine, Mich., July 22. L. K. FEICK.

Streaked Honey Crop in Michigan

The Michigan honey crop is streaked. The raspberry crop is practically destroyed on account of the frosts, and later the dry weather. Those who have depended upon it have practically no crop. On the other hand, those who have willow-herb, milkweed, etc., are securing a fine crop in certain northern Michigan points. Southern Michigan has a fairly medium crop. The specialist's crop in many instances is short, but the farmer bee-keepers, as a general rule, are securing more honey than usual on account of very light swarming.

A. G. WOODMAN.
Grand Rapids, Mich., July 30.

LATER.—As advised in previous letter, the Michigan honey crop is streaked; the people that depended upon raspberry entirely have no crop. Mr. Chapman, of Mancelona, in recent letters, advises that he will not get any more than the sugar he fed in the spring to keep the bees alive. Other Northern Michigan points are securing a crop and a half (in certain places) where they have abundance of willow-herb, milkweed, etc. The crop is now being secured from there, and of course, they have the advantage of having bees built up on the things that came earlier in the season. A. G. W.
August 2.

Apiarian Exhibits at Fairs

MR. EDITOR:—I have been appointed superintendent for a new department in the coming fair of the Joliet Agricultural Society to be held in Joliet during the coming August, the department being "Apiary."

In the effort to get a good exhibition and to help educate the people of this (Will) county on the subject, I am enclosing a letter which I am writing to every extensive bee-keeper. The object of this, primarily, is to succeed in the ideas mentioned in the enclosed letter.

For the good it may do, would it be out of place in the American Bee Journal, taking into consideration the number of bee-keepers who are also to be in charge of exhibits throughout the country who might read it? I can report only a small crop of honey here—about 20 percent—on account of dry weather alone. Colonies are all strong, but all the clovers and other field plants are drying up, leaving a scanty pasture.

KENNETH HAWKINS.
Plainfield, Ill., July 23.

[The following is the letter which Mr. Hawkins sent out to bee-keepers:—EDITOR.]

PLAINFIELD, ILL., July 22, 1910.
MR. BEE-KEEPER:—I am writing to you to call your attention to the new department of "Dairy and Apiary," created for the fair of the Joliet Agricultural Society this fall.

Your name was handed to me at a recent meeting of the directors and superintendents as a possible exhibitor.

I am green at the business of a superin-

tendent, but as the good of a Fair comes from the individual effort of the department managers, I am going to write to all the extensive bee-keepers of the county in the effort to secure a good exhibition of those 2 things of which the average person knows so little—that is, honey and bees.

A good exhibit for several years will do many things for the bee-keepers, but chiefly to get the people to know good honey when they see it, creating a demand for a better product, and getting them in sympathy with apiarists, which will greatly aid in getting foul-brood legislation, which this State needs so sadly.

For these reasons I hope to interest you to exhibit, and as any names of extensive bee-keepers will be appreciated if sent to me, I hope to be of some favor to you in the future, and to hear from you in regard to this matter.

Yours truly,
KENNETH HAWKINS.

Good Honey Crop

The honey crop will be good in this section this year, averaging perhaps 75 pounds per colony. VIRGIL SIRE.
N. Yakima, Wash., July 30.

Bees Doing Fairly Well

Bees are doing fairly well. They are getting some fine honey now. Cleome is in full bloom. Bees are busy on it and on sweet clover. G. D. CALEY.
Cozad, Neb., Aug. 2.

Honey Crop Dried Up

The mercury is at 92 degrees in the shade as I write—11:45 a.m. We have had no rain in 4 weeks, which, with this burning heat, has dried up our honey crop. G. M. DOOLITTLE.
Borodino, N. Y., July 9.

A Medium Honey Crop

The prospects are for a medium honey crop with fair prices. Extracting is just beginning in this locality (Central California). We will take from 20 to 30 pounds per colony, and in 2 or 3 weeks repeat, and so on until Oct. 15th. A. G. REED.
Tulare Cal., July 26.

Bees Doing Fine

Bees are doing fine and bringing in plenty of honey. I have not been troubled about swarming this year. Some of my Italian colonies have stored 3 supers full of honey, and if the weather continues like it is now, they will average about 100 pounds per colony. D. H. GATHMANN.
Forest City, Ill., July 11.

Bees Doing Well

My bees are doing well now, storing honey; but the forepart of the season was very poor—too dry. I had one swarm from 11 colonies; last year 16 colonies and no swarms and no honey; the year before was not much better. We have had some good rains lately which revived the flowers. W. L. POWELL.
Arkansas City, Kan., July 19.

Pleurisy-Root as a Honey-Plant, Etc.

Have you had any experience with white root, pleurisy root, butterfly root (all one) as a honey-plant? With me it's the thing. On one stalk or plant I counted 38 bees. The plant was about 2 feet high, and as large around as a flour-barrel. It commences to bloom July 1st, and will last for 30 days, or if moved off, from 30 to 60 days. I mean mow half the patch. It grows on the roadside on sandy loam, some on prairies and along fences. It will grow and thrive in sod, or in a door-yard. I enclose a small sprig. Put it in a glass of water and set where the bees can get at it. Probably they will alight on it. The seed enclosed is about the same as milkweed or wild cotton, as some call it here. The honey is quite dark, about like buckwheat or milkweed, but of thick body. I prefer it to clover honey.

There was plenty of white clover, but the bees did not gather much honey. Three rods square of white root is worth an acre of clover. I have also catnip, motherwort, heartsease, Spanish-needle, milkweed, and

of goldenrod 3 kinds. I have 20 colonies of Italians, 12 new colonies. I use the 8-frame Langstroth hive with Hoffman frames; also some Quinby style, 11 frames crosswise. I use a T-super on the Quinby, and the standard No. 1 super on the 8-frame, with full sheets of foundation and half sheets in sections. I have some May swarms that I expect to fill 3 supers. There is no foul brood here, but there is some 12 miles north. I lost 10 colonies with dysentery last spring. This is my third year with bees, and I have been stung only once; I was to blame for that. I went to stroke the bees down from the hive and had a hole in my glove.

A. H. HONEYWELL.
Mendon, Mich., July 26.

[ANSWER.—No, I've had no experience with pleurisy-root, as it doesn't grow here. Others, however, agree with you in giving it very high praise as a honey-plant.—C. C. MILLER.]

American Bee Journal Suits Him

Please allow me to congratulate you on the fine appearance of the American Bee Journal the past year, and also for the fine articles contained therein. Scholl's wholesale method of putting comb foundation in frames in the June number is well worth the price of a year's subscription, as are also many others, Mr. C. P. Dadant's, especially. Keep the good work up. FRED H. MAY.
Meredosia, Ill., June 28.

A Discouraging Report

It is really amusing to see the different reports from bee-keepers. Some draw beautiful pictures of a bountiful year and a heavy crop of honey; others mark out a very dark road. I am sure, on the dark road, for out of 52 colonies I have taken only 75 pounds of honey. Who can beat that? I am now hoping the bees may fill up the hives for winter. Galax, Va., July 25. G. F. JONES.

Everything Drying Up

I have extracted about 600 pounds of honey from 30 colonies, and can get 200 or 300 pounds more if we have a little fall flow. Of course, it is not much for so many colonies, but weather conditions have not been favorable. We have had no rain to speak of for nearly 2 months. Everything is drying up here, but bee-keepers are hopeful people, so we will hope that we may yet have a fall flow. G. A. BARBISCH.
La Crescent, Minn., July 21.

Drouth Cuts Honey Crop Short

Bees did very well here the last 2 weeks in June, but since then they have done nothing. We have had no rain for nearly 2 months, and everything is drying up. In this locality we will not have more than half of the crop we would have had if we had had rain about July 1st. We had the first nice shower of rain last night in 2 months, but it is too late to do much good. I have 120 colonies. WM. J. HEALY.
Mineral Point, Wis., July 24.

The Fritze Non-Swarming Method

I have read the foot-note to the very much appreciated letter from Mrs. E. Monette (page 150), concerning the Dr. H. Jones method of preventing swarming. He fancied that he had discovered the C. Davenport plan, but I think that it is now generally known as a fact that he did not, and I am sure Dr. Jones was aware of it long before Mrs. Monette wrote her letter, because I believe I was the first one to whom Dr. Jones sent the booklet which describes his plan, as he desired me to let him know if it was the same as mine, and, if not, to criticise his plan, which I did in a lamb-like way; and I think I fulfilled his wish, because I have never heard from him since.

I think the Editor came to a rather sharp and quick decision when he made the statement that his non-swarming method perished with Mr. Davenport when he was burned to death with his house and its contents. I don't know whether or not my method is the Davenport method, but I know that it is the W. F. Fritze method. I also know some time before Mr. Davenport wrote his articles in the American Bee Journal that he had discovered my method, when he said, Aug. 3, 1905, page 536, "I can swarm any colony artificially so as to get

American Bee Journal

more honey, either comb or extracted, than if they swarm naturally, or do not swarm at all.

I hope the readers of the American Bee Journal will be roused out of their dreamy sleep in which they likely have been lulled by the publication of this letter. I don't want it as an advertisement, but simply to make known that the rival of natural swarming, which is known as the C. Davenport method, did not perish, and is not perishable, and that no one need have any fear that the world will become overstocked with honey as soon as it becomes known. But I do claim it will cause the shackles to fall, and that it will be as welcome as a rain in the time of drouth.

My book is already written, but, as I am a poor writer, I must re-write it once more. Its title will be, "The Rival of Natural Swarming, Discovered 1895 in Crossing the Bumble-Bee Drones with the Honey-Bee Queens;" and the book will also tell how it was discovered.

I hope that Dr. Jones will have disposed of as many of his radical cures of the swarming habit as he desires by the time I get my book printed, for it is likely to be a bad parasite and cause a relapse in all his radical cures.

W. F. FRITZE.
Minnesota, July 15.

Good White Clover Season

The season here is very good. The spring was pretty hard on the bees, but when white clover came on they did splendidly.

I am now nearing my 86th birthday, and my nerves are as steady as they were 65 years ago.

I appreciate the American Bee Journal very much. (REV.) MILTON MAHIN.
Newcastle, Ind., July 18.

[We congratulate Mr. Mahin upon his 4 score and 6 years. May he go on to his 90th, "and then some."—EDITOR.]

Bulk-Comb Honey Good Enough

It is too dry here, but bees are storing some honey. Except for a few sections we always use long frames. Bulk-comb honey is good enough for us, and we have never sold any of it for less than 15 cents a pound.

We have the best success here with 8-frame hives, by adding another story without queen-excluder, as soon as the colony needs more room.

We find the pictures of apiaries one of the best parts of the American Bee Journal.

CLARENCE DODD.
Popejoy, Iowa, July 19.

Season of 1910

I started the season of 1910 with 120 colonies. Swarming began June 11th and continued for more than 3 weeks, getting from 1 to 7 swarms a day. I kept increase down by various expedients, so that I have now about 160 colonies.

The honey-flow began early, and was good until about a week ago. Storing is very slow now.

EDWIN BEVIN.
Leon, Iowa, July 31.

"Langstroth on the Honey-Bee"

This is one of the standard books on bees. It tells in a simple, concise manner just how to keep bees. It was originally written by Rev. L. L. Langstroth, who invented the movable-frame hive in 1851. The book has been brought right down to date by Dadant & Sons, than who there are no better or more practical bee-keepers in this or any other country. It contains nearly 600 pages, is fully illustrated, and is bound in cloth. Every topic is clearly and thoroughly explained, so that by following its instructions no one should fail to be successful with bees. Price, postpaid, \$1.20; or with the American Bee Journal one year—both for \$2.00. Send all orders to the American Bee Journal, 146 W. Superior St., Chicago, Ill.

Wants, Exchanges, Etc.

[Advertisements in this department will be inserted at 15 cents per line, with no discounts of any kind. Notices here cannot be less than two lines. If wanted in this department, you must say so when ordering.]

FOR SALE—Sweet Clover Seed after September 1st. Wm. Craig, Luce, Mich.

FOR SALE—160-lb. honey-kegs at 50c each f. o. b. factory. N. L. Stevens, Moravia, N. Y.

UNTESTED Queens, 75 cents; Tested, \$1.25. Breeders, \$5.00 each. E. M. Collier, 8A12t 75 Broadway, Ossining, N. Y.

FOR SALE—27 colonies in new 1½-story 8 & 10 frame hives. For price and description, Address, G. C. Thacher, Rt. 3, Kingsley, Pa.

FOR SALE—80 Italian colonies bees in good 10-frame hives, all in good shape; will sell in lots of 5 or 10. E. E. Williams, Olathe, Colo.

MAINE-BRED Italian Queens—Untested 75c Tested \$1. Nuclei and full colonies. Red-clover strain. Write for price-list. 8A3t. Eugene Watson, R. F. D. 2, Madison, Maine.

FOR SALE—Golden Queens that produce 50 to 100 percent 5-banded bees. Untested, \$1; Tested \$1.50; Select Tes. \$2; Breeders, \$5 to \$10. 8A12t J. B. Brockwell, Bradley's Store, Va.

WANTED—Fancy Comb & Extracted Honey from producers, in large quantities. Send Sample of Extracted and prices. C. W. Harmon Co., 31 Josephine St., 8Atf Asheville, N. C.

WANTED—Some one who wants a good location for bees, to take up a homestead or Government land. I know a few nice vacant pieces. Address, Jas. M. Level, 8Atf Yacolt, Clark Co., Wash.

FOR SALE—Choice extracted honey for table use, mostly sweet clover—water-white, thick, well-ripened, flavor simply delicious. Price, 9c per lb. in 60-lb. cans. Sample, 10c. J. P. Moore, Queen-Breeder, Morgan, Ky.

FOR SALE—35 colonies of 3-band Italians in new 10-frame Danz. & dov'td hives that must be sold by Oct. 1st. Write for prices or make offers. Any reasonable price takes them. S. A. Peck, Box 124, Northumberland, Pa.

FOR SALE—75 to 100 Colonies Italian Bees in 8-frame hives; hives nearly new, and all heavy with honey. No disease. Price, \$5.00 per colony f. o. b. shipping-point. Address, 8Atf Wm. J. Healy, Mineral Point, Wis.

FOR SALE—Extracted honey gathered while the country around was covered with white clover bloom. Was extracted from sealed combs. If you want something that will satisfy, send \$5.50 per can, for two or more 60-pound cans. Edwin Bevins, 8Atf Rt. 2, Leon, Decatur Co., Iowa.

In Order to Make Room

For next season's supplies, I will offer 8-frame hives and appliances, nailed and painted 2 coats lead and oil: 1-story at \$1.75; Super (4½ or 4x5), 60c; Hive-Body (with frames and follower), \$1.00; Bottoms (7½), 33c; Covers, 42c; Colorado, 52c.

Frames—Hoffman \$2.75 pr. 100; Nailed, \$4.00 — 5½ 1.85 ; 3.00

Other Supplies at regular prices. 2% dis. on the above goods in lots of 5; 3% on 10.

Geo. E. Kramer, Rt. 26, Valencia, Pa.

Pearce Method of Bee-Keeping

This is an illustrated pamphlet 6x8½ inches, just issued (July, 1910), "which fully explains the plan of keeping bees successfully in upper rooms, house at-

tics or lofts, whereby any one either in city or country is enabled with only a small expenditure of labor to get a good supply of honey without coming in contact with the bees, and without having the bees swarm out and leave, or being troubled from stings as you work on one side of the wall and the bees on the other. This method also tells the commercial bee-keeper how he can divide his bees when he wishes to, instead of waiting and watching for them to swarm. It can all be done on the same day, or days if more than one apiary, as the time required for this operation is merely nominal, no swarms issue and go away. These methods are fully explained in this book, and how to care for the bees on the Pearce plan."

We mail this pamphlet for 50 cents, or club it with the American Bee Journal one year—both for \$1.35. Send all orders to the American Bee Journal, 146 W. Superior St., Chicago, Ill.

Souvenir Bee Postal Cards

We have 4 Souvenir Postal Cards of interest to bee-keepers. No. 1 is a Teddy Bear card, with stanza of poetry, a straw bee-hive, a jar and section of honey, etc. It is quite sentimental. No. 2 has the words and music of the song, "The Bee-Keeper's Lullaby;" No. 3, the words and music of "Buckwheat Cakes and Honey;" and No. 4, the words and music of "The Humming of the Bees." We send these cards, postpaid, as follows: 4 cards for 10 cents, 10 cards for 20 cents; or 10 cards with the American Bee Journal one year for \$1.10. Send all orders to the office of the American Bee Journal, 146 W. Superior St., Chicago, Ill.

Langstroth on the Honey-Bee

Revised by Dadant. Latest Edition.

This is one of the standard books on bee-culture, and ought to be in the library of every bee-keeper. Bound in substantial cloth, and has nearly 600 pages. Revised by that large, practical bee-keeper, so well known to all bee-dom—Mr. C. P. Dadant. Each topic is clearly and thoroughly explained, so that by following the instructions of this book one can not fail to be wonderfully helped on the way to success with bees.

We mail the book for \$1.20, or club it with the American Bee Journal for one year—both for \$2.00. This is indeed a splendid chance to get a grand bee-book for a very little money.

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Tacoma, Wash. P. A. NORMAN.

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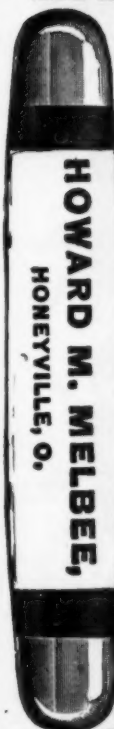
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Your name and address put on one side of the handle as shown in cut, and on the other side pictures of a queen-bee, a worker, and a drone. The handle is celluloid and transparent, through which is seen your name. If you lose this knife it can be returned to you, or serves to identify you if you happen to be injured fatally, or are unconscious. Cutis exact size. Be sure to write exact name and address. Knife delivered in two weeks. Price of knife alone, postpaid, \$1.25. With year's subscription, \$1.00. Free for 3 new \$1 subscriptions.

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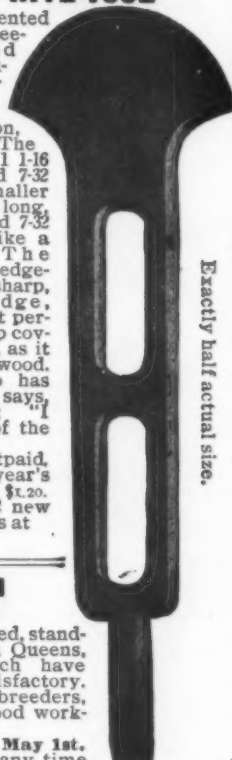


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A special tool invented by a Minnesota bee-keeper, adapted for prying up supers and for general work around the apiary. Made of malleable iron, $\frac{5}{8}$ inches long. The middle part is 1 1-16 inches wide and 7-32 thick. The smaller end is 17-8 inches long, 1-2 inch wide, and 7-32 thick, ending like a screw-driver. The larger end is wedge-shaped having a sharp, semi-circular edge, making it almost perfect for prying up covers, supers, etc., as it does not mar the wood. Dr. Miller, who has used it since 1903 says, January 7, 1907: "I think as much of the tool as ever." Price alone, postpaid, 40 cents. With a year's subscription, \$1.20. Given free for 2 new subscriptions at \$1.00 each.



Exactly half actual size.

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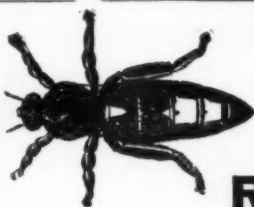
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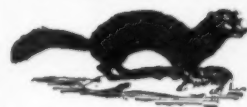
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State quantity you have to offer,
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Our stock is now conveniently arranged, hence no confusion in filling orders. We now have on display in our show-room a complete line of our supplies. Call and see them. From this date we will have cars from the factory about every 10 days.

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Mr. Alexander was one of the largest, if not the largest, bee-keeper in the United States, and what he has told of his methods must necessarily be of interest to large bee-keepers. He kept bees for over 40 years, and produced honey by the carload. His writings are practical, and what he has done others may do if they care to follow his teachings. Here is what a prominent bee-keeper says of his book:

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We believe all of our extractors are about as near perfect as it is possible to make them. For large apiaries one of our power machines is a great advantage. A circular of these will be sent upon request.

Read what a large producer says:

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This year we aim to give our customers the very best possible service. Remember, for low freight-rates and quick delivery, Chicago is as well located as any city in the United States.

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Three - Banded Leather-Colored Italian QUEENS. Selected Untested, \$1.00 each; 6 for \$4.50. Also—FULL COLONIES and NUCLEI For Sale. Circular Free.

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Safe arrival guaranteed. Twenty-one years' experience. Send your orders to

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Is again ready with his Italian Queens. There is no mistake but the Red-clover Italians are the best bees known. Letters coming in nearly every day verify this claim. Just read this one:

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The best fruit growers' illustrated monthly published in the world. Devoted exclusively to modern and progressive fruit growing and marketing. Northwestern methods get fancy prices, and growers net \$200 to \$1000 per acre. One Dollar per year. Sample copies free.

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Send for Bee-Supply Catalog.

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Have no equal. Untested, 50 cts. Select untested, 75c. Tested, \$1.00. 6A3t

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For Sale

Fine GOLDEN ITALIAN QUEENS from good stock at 50c each. J. F. MICHAEL, Rt. 1, WINCHESTER, IND.

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Read what J. I. PARENT, of Charlton, N. Y., says: "We cut with one of your Combined Machines, last winter, 80 chaff hives with 7-in. cap, 100 honey-racks, 600 brood-frames, 2,000 honey-boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it with this Saw. It will do all you say it will." Catalog and price-list free.

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If you are going to want any Queens for increase, or replacing old queens next June, it is time to begin to think about it. I have been breeding leather-colored Italian queens for years, and they are giving excellent satisfaction. If you are interested, write. Good queens; no disease; prompt shipment, and absolute satisfaction guaranteed. Prices: June, one, 00c; three, \$2.50; six, \$4.75; doz., \$9.00; 20 or more at 60c each. 2Aot

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1. The first cost of the Paper Cases is less.
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Send for our Circulars and let us tell you what some of the other large producers and dealers say.

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Plan to order early. Some were disappointed last year.

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American Bee Journal

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Choice Home-Bred Imported Stock. All Queens reared in Full Colonies.

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Safe arrival guaranteed.

For price on larger quantities, and description of each grade of Queens; send for Catalog. Send for sample COMB FOUNDATION. 3Atf

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Pharr's Golden took first prize at 3 exhibits in Texas in 1907. We will furnish Golden, Carniolan, Caucasian, and 3-band Italian Queens, untested, \$1.00 till June 1, then 75 cents. Tested, \$1.50 till June 1, then \$1.00. For large quantities, write. Our 3-band Breeders from W. O. Victor and Grant Anderson strains; other races from the best obtainable. "Prompt service and satisfaction," is our motto. Address. 5Atf

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Having moved my Banat Apiaries from Sabinal to San Benito, Texas, I am now better prepared to furnish High Quality

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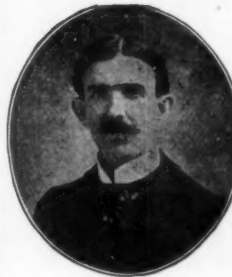
My stock is pure and free from disease—the gentlest bees on earth.

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NORWOOD'S Texas-Bred—QUEENS

Three-banded Queen-Bees bred for business. Try them, then you'll know. Untested, \$1.00; six, \$5.00. Write us. 5Atf **E. B. NORWOOD, Del Valle, Tex.** Please mention Am. Bee Journal when writing.



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Standard hives with latest improvement; Danzenbaker Hives, Sections, Comb Foundation, Extractors, Smokers—in fact, everything used about the bees. My equipment, my stock of goods, the quality of my goods, and my shipping facilities, can not be excelled.

Paper Milk Bottles,

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All Bingham Smokers are stamped on the tin, "Patented 1878, 1892, and 1903," and have all the new improvements.

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| Smoke Engine—largest smoker made..... | \$1.50—4 | inch stove |
| Doctor—cheapest made to use | 1.10—3 1/4 | " |
| Conqueror—right for most apiaries | 1.00—3 | " |
| Large—lasts longer than any other | .90—2 1/4 | " |
| Little Wonder—as its name implies | .65—2 | " |

The above prices deliver Smoker at your post-office free. We send circular if requested. Original Bingham & Hetherington Uncapping-Knife.

T. F. BINGHAM, Alma, Mich.



Patented, May 20, 1879. **BEST ON EARTH.**

Please mention Am. Bee Journal when writing.



DOOLITTLE'S "Scientific Queen-Rearing"



This is G. M. Doolittle's master-piece on rearing the best of queens in perfect accord with Nature's way. It is for the amateur and the veteran in bee-keeping. The A. I. Root Co., who ought to know, say this about Doolittle's queen-rearing book:

"It is practically the only comprehensive book on queen-rearing now in print. It is looked upon by many as the foundation of modern methods of rearing queens wholesale."

Mr. Doolittle's book also gives his method of producing comb honey, and the care of same; his management of swarming, weak colonies, etc. It is a book of 126 pages, and is mailed at the following prices: Bound in cloth, \$1.00; bound in leatherette, 75 cents.

Special Clubbing Offer

We offer a cloth-bound copy of this book with the American Bee Journal one year—both for \$1.50; or a copy of the leatherette-bound edition, with the American Bee Journal one year—both for \$1.25. The cloth-bound book given free for getting 3 new subscribers at \$1. each; or the leatherette-bound copy given for 2 new subscribers.

Every bee-keeper should have a copy of Mr. Doolittle's book, as he is one of the standard authorities of the world on the subject of queen-rearing and everything else connected with bee-keeping and honey-production.

George W. York & Co.,

Chicago, Ill.

LEWIS BEEWARE — Shipped Promptly

—SEND FOR NEW CATALOG—

Extracted Honey for Sale.

(Ask for Prices.)

Beeswax Wanted.

28c Cash—31c Trade.

ARND HONEY & BEE-SUPPLY CO. INC.

(Successors to the York Honey & Bee-Supply Co.)

H. M. ARND, Proprietor.

148 West Superior St., CHICAGO, ILL.

Please mention Am. Bee Journal when writing.

American Bee Journal

Honey and + Beeswax +

CHICAGO, July 26.—A few consignments of new comb honey have come on the market, the A No. 1 to fancy grades bringing 17c; No. 1, 15@16c, with other less desirable grades ranging from 10@13c less per pound. Extracted white clover brings 8c, with other grades of white 7@7½c; amber, 6@7c, according to body, flavor, etc. Beeswax steady at 30@32c according to color and condition. We look for these prices to prevail for the ensuing few weeks.
R. A. BURNETT & Co.

CINCINNATI, July 26.—The market on comb honey is brisk. Fancy white comb is selling in a wholesale way at 15½@16c. Fancy extracted from 8½@9½c; amber in barrels from 6½@7c. Beeswax is in fair demand at \$33 per 100 lbs. These are our selling prices, not what we are paying.
C. H. W. WEBER & Co.

KANSAS CITY, MO., July 26.—The receipts of comb honey are fair, and up to date the demand has been equal to the receipts; there is no old or new extracted in the market. We quote: No. 1 white comb, 24 sec. cases, per case, \$3.50; No. 2, \$3.00@3.25; No. 1 amber, \$3.00@3.25; No. 2 amber, \$2.50@3.25. Extracted, if on the market, would bring 7@7½c. Beeswax, 25c.
C. C. CLEMONS PRODUCE CO.

DENVER, July 30.—We quote strictly No. 1 new crop comb honey in a jobbing way at \$3.60 per case of 24 sections; No. 2 at \$3.15. Last season's crop is now all cleaned up. Extracted, strictly No. 1 white, 8½c; light amber at 7½c; amber and strained at 6½c per pound. We pay 25c for clean yellow beeswax delivered here.

THE COLO. HONEY-PRODUCERS' ASS'N.
F. Rauchfuss, Mgr.

NEW YORK, Aug. 5.—No arrivals as yet of new crop New York State comb honey or near-by, and we do not expect any large shipments until a couple of weeks from now. Have had some sample cases sent in which show up very good as to quality. Market prices are not established as yet, although we should think that fancy white will sell readily at around 15c a pound, and special fine lots may bring more. Off grades accordingly. Extracted is in good demand. Receipts are mostly from the Southern States, and we do not expect any Eastern honey for a couple of weeks to come. New-crop Southern is selling at from 65@70c a gallon for common average, and 75@85c for choice and fancy.
HILDRETH & SEGELKEN.

ZANESVILLE, OHIO, July 27.—Very little new honey has arrived as yet, and so the market is not settled. The market being bare, dealers are having little trouble to get prices asked. For northern comb grading No. 1 to fancy, producers are offered by the jobbing trade 14@15c delivered; best white extracted, 8c, f. o. b. here. The demand for comb honey is in excess of the supply; for extracted, about normal. For good quality beeswax, producers are offered 28c cash, 30c in exchange.
EDMUND W. PEIRCE.

INDIANAPOLIS, July 26.—The new crop is now moving, and demand seems to be exceptionally good for this season of year. Jobbers are offering fancy white comb at 17c; No. 1 white, 16c. Finest extracted at 10c, with some slight reductions on large quantities. It is presumed that producers are being paid about 2c less than above quotations. This is not a desirable market for amber honey. Producers of beeswax are being paid 28c cash, or 30c in trade.
WALTER S. POWDER.

BOSTON, July 27.—Fancy white comb honey at 17@18c; No. 1, 15@16c. Fancy white extracted, 9@10c; white, 8@9c. Beeswax, 30c.
BLAKE, LEE CO.

Superior Italian Queens Select Tested stock sold for \$1.25. Satisfaction guaranteed.
I. A. EGENSE, Story City, Iowa.
Please mention Am. Bee Journal when writing.

FALCON FOUNDATION

Years of experience in the manufacture of

FALCON COMB FOUNDATION

have made it PERFECT.

Bees like it, and the foremost

Honey-Producers Use It.

It helps materially to increase the

Honey Crop

(Send for our new Catalog.)

Ship us your

BEESWAX

to FALCONER, N. Y.

Will send shipping-tags, when you write asking for quotations.

We pay highest market prices.

W. T. FALCONER MFG. CO.

JAMESTOWN, N. Y.

SUPERIOR BEE-SUPPLIES

Specially made for Western bee-keepers by G. B. Lewis Co. Sold by

Colorado Honey-Producers' Association,
DENVER, COLO.

Please mention Am. Bee Journal when writing.

HONEY WANTED

When you have any to offer, let US hear from you.

If it is Comb Honey, state how it is put up, and the grade;

If it is Extracted, mail us a Sample and state your lowest price delivered Cincinnati.

We can use any amount, and are always in the market

C. H. W. Weber & Co.

2146 Central Avenue,

Cincinnati, Ohio

BEE-KEEPERS OF THE NORTH

BEE-KEEPERS OF THE WEST

Be Sure to get our PRICES on

B E E S W A X

Before selling your season's Wax
or
Let us send to you our prices for
Working your Wax into

DADANT'S FOUNDATION

Many large Honey-Producers prefer our Foundation to other makes, because the bees like it best.

We can use almost an unlimited quantity of BEESWAX, and we are buying at all times of the year at highest cash and trade prices.

During the season of 1909 we handled over 175,000 pounds of Beeswax.

DADANT & SONS, Hamilton, Illinois.

BEE-SUPPLIES OF ALL KINDS.

We Keep Only the Best.

Let us Figure on
Your Season's Supplies

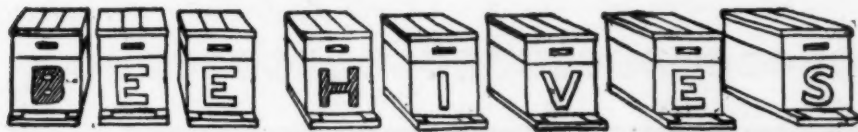
1910 CATALOG

Now Ready,

and Free for the Asking.

BEE-KEEPERS OF THE EAST

BEE-KEEPERS OF THE SOUTH



Are our **Specialty**. We furnish such extensive bee-keepers as E. D. Townsend and others. Consider getting your bees into **Protection Hives** this Fall. Give us list of Goods wanted.

A. G. WOODMAN CO., Grand Rapids, Mich.

QUEENS Golden, Red Clover, & 3-Banded QUEENS

Untested, 75 cents each; \$4.40 for 6; \$8.75 per dozen. Tested, \$1.00 each. Queens sent by return mail.

DANIEL WURTH, Rt. 1, Wapato, Wash.

50,000 Copies "Honey as a Health-Food" To Help Increase the Demand for Honey

We have had printed an edition of over 50,000 copies of the 16-page pamphlet on "Honey as a Health-Food." It is envelope size, and just the thing to create a local demand for honey.

The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last is devoted to "Honey Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey as a food, the more honey they will buy.

Prices, prepaid—Sample copy for a 2-cent stamp; 50 copies for 90 cents; 100 copies for \$1.50; 250 copies for \$3.00; 500 for \$5.00; or 1000 for \$9.00. Your business card printed free at the bottom of front page on all orders for 100 or more copies.

Address all orders to

GEORGE W. YORK & CO.,

Chicago, Ill.

Only 25 cents per Case!

60-lb. Empty Tins, two to a case; used but once—as good as new.

C. H. W. Weber & Co., Cincinnati, Ohio.

DO YOU WANT TO SELL YOUR FARM?

If so, give me price, description, and state when possession can be had. I wish to hear only from OWNER, who will sell direct to buyer.

REX A. LEONARD, Andover, Ohio.

Please mention Am. Bee Journal when writing.

QUEENS

AND BEES — an improved, superior strain of Italians is what **QUIRIN REARS**. All yards winter on summer stands with practically no loss. Our stock is hardy, and will ward off brood diseases.

Last spring we sent fifty nuclei to J. D. Nixon, La Farge, Wis., and on July 20th (same year) he wrote us saying they did just splendid, as at that writing they had already filled their supers, and that he would have to extract them. We have files of testimonials similar to the above.

| | Prices before July 1 | 1 | 6 | 12 |
|----------------------------|----------------------|---------|---------|----|
| Select queens..... | \$ 75 | \$ 4 00 | \$ 9 00 | |
| Tested queens..... | 1 00 | 5 00 | 9 00 | |
| Select tested queens..... | 1 50 | 8 00 | 15 00 | |
| Breeders..... | 3 00 | 15 00 | | |
| Golden breeders..... | 5 00 | | | |
| 2-comb nuclei, no queen.. | 2 25 | 12 00 | 22 00 | |
| 3-comb nuclei..... | 3 25 | 18 00 | 32 00 | |
| Full colonies on 8 frames. | 5 00 | 25 00 | | |

All Queens go now By Return Mail.

Add the price of whatever grade of Queen is wanted with Nuclei and Colonies. No order too large and none too small. Will keep 500 to 1000 queens on hand ready to mail. Safe delivery and pure mating guaranteed. Over 20 years a breeder. Testimonials and Circular free.

QUIRIN-THE-QUEEN BREEDER, BELL EVUE, OHIO.

Please mention Am. Bee Journal when writing.

Wanted —Old Combs and Slumgum. Will work it for half and pay 30 cents a pound for your share of wax. **A. A. LYONS, 8A12t Rt. 5, Box 88, Ft. Collins, Colo.** Please mention Am. Bee Journal when writing.